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              IN THE UNITED STATES DISTRICT COURT
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                FOR THE DISTRICT OF NEW MEXICO
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 4
    UNITED STATES OF AMERICA
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                                  )
                                     No. 1:CR-18-3495 JCH
    VS.
 6
    DOUGLAS SMITH
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12
                   TRANSCRIPT OF PROCEEDINGS
13
                  MOTIONS HEARING (via Zoom)
14
                        November 5, 2020
15
16
    BEFORE: HONORABLE JUDGE JUDITH HERRERA
              UNITED STATES DISTRICT JUDGE
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19
20
          Proceedings reported by stenotype.
21
          Transcript produced by computer-aided
22
    transcription.
23
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1 APPEARANCES: 2 FOR THE GOVERNMENT: KYLE NAYBACK NOVALINE WILSON 3 novaline.wilson@usdoj.gov Office of the U.S. Attorney 201 Third Street, Northwest #900 4 Albuquerque, New Mexico 87103 505-224-1419 5 6 FOR DEFENDANT: ARIC ELSENHEIMER aric elsenheimer@fd.org 7 AMANDA LAVIN amanda_lavin@fd.org
Office of the Federal Public 8 Defender 9 111 Lomas Boulevard, Northwest, #501 10 Albuquerque, New Mexico 87102 505-346-2489 11 12 13 14 15 16 17 18 19 20 21 2.2 23 24 25

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THE COURT: All right. We're on the record
 1
    in USA versus Douglas Smith. The case number is
 2
 3
    CR-18-3495.
 4
              And can I have appearances, please, before
 5
    we get into who all is participating today?
 6
              MR. NAYBACK: Good morning, Your Honor.
 7
              Kyle Nayback on behalf of the
 8
    United States. I'm with my colleague Novaline
 9
    Wilson. And we'll be sharing motions and witnesses
10
    on and off, if that's okay.
11
              THE COURT: Thank you.
12
              MR. ELSENHEIMER: Good morning, Your Honor.
13
              Aric Elsenheimer on behalf of Mr. Douglas
14
    Smith.
15
              We are in the Mimbres courtroom.
16
    joined by my colleague, Amanda Lavin and a paralegal
17
    with the federal public defender's office.
              And Mr. Smith is with us here in the
18
19
    courtroom.
20
              Your Honor, before we go -- because we're
21
    in the courthouse, as I understand there is a court
2.2
    order that requires that we wear masks. If we're
23
    sitting at counsel table, we will be wearing masks.
24
    But can I have the Court's permission to not wear a
    mask while I'm speaking, or whomever is speaking?
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Would that be all right?
 1
              THE COURT: That's fine. Can you just let
 2
 3
    me know if you're properly distanced from other
    people at that point or ...
 5
              MR. ELSENHEIMER: We are from Doug Smith.
 6
    But we -- we're doing our best to stay as far away as
 7
    we can. Probably not six feet from my colleague.
 8
    But...
 9
              THE COURT: Well, if those who are not
10
    speaking wear masks, maybe we can try to...
11
              MR. ELSENHEIMER: They do have masks on.
12
              THE COURT: All right. Okay. Thank you.
13
              Now, I don't see the defendant. But you
    said he's in the courtroom with you.
14
15
              Is that correct?
16
              MR. ELSENHEIMER: He is. Yes, Your Honor.
17
    Let me have him come up to the -- he is here.
18
              THE COURT: As long as you put on the
19
    record that he's there, that's fine.
20
              So, Mr. Nayback, tell me who else is
21
    observing or participating in this hearing.
2.2
              MR. NAYBACK: Thank you, Your Honor.
23
              The first witness we intend to call is
24
    Saige Libertore, who you see on your screen, I
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    believe.
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The second witness is Theodore Chavez, who
you see on your screen. He's presenting from our US
Attorney's office in Tulsa, Oklahoma, Conference Room
561.
          And then I believe we have -- I don't see
their names, but a couple of FBI supervisors
observing. Eric Smith and Jim Adar. Those are the
four witnesses and/or participants that should be
allowed on behalf of the United States.
          Thank you.
          THE COURT: All right. Mr. Elsenheimer, do
you have any witnesses or observers?
         MR. ELSENHEIMER: We have three observers,
Your Honor.
          The first observer is Ms. Shaley Klein.
I'm sorry. It shows up on the screen as S. Klein.
Shaley Klein is a paralegal intern with our office.
         Also joining us is Corina Titus. She's an
investigator with our office.
          And lastly, I believe it's Verenees -- I
think it's Pernia. I can't see the full name. But
that's somebody who our colleague, Kari Converse --
someone who asked our colleague Kari Converse if --
if that person can observe a hearing. And this was a
hearing that was on the calendar.
                                   So...
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THE COURT: All right. Very good.
 1
              Well, we're here today to take up several
 2
 3
              Let me tell you that you have my undivided
 4
    attention all morning, but I need to try to get this
 5
    wrapped up before we break for lunch. Hopefully we
 6
    break for lunch at noon. But if it's a little -- if
 7
    it goes a little bit longer I can accommodate that,
 8
    but we need to -- we need to be -- I don't have the
 9
    afternoon available. So hopefully that works with
10
    your -- with your plans.
11
              So I think we should begin with the motions
12
    that require testimony.
13
              So let me ask: Are you ready to proceed,
14
    Mr. Nayback?
15
              MR. NAYBACK: I am, Your Honor. And we
16
    would -- I'm glad you suggested that. We were hoping
17
    to call Saige Libertore first. I don't think she's a
18
    lengthy witness, at least from our perspective.
19
              And then Theodore Chavez second. And he is
20
    the trajectory expert.
21
              Ms. Libertore put the model together, and
2.2
    so those are the respective motions that we were
23
    having them testify about.
24
              So we would be happy to start with
25
    Ms. Libertore whenever the Court is ready.
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1
              THE COURT: All right. Is that all right
    with you, Mr. Elsenheimer? My suggestion that we
 2
 3
    begin with testimony, to the extent we can get that
 4
    done. I'd like to be sure that we get that done this
 5
    morning. If what is left after that is oral
 6
    argument, I feel like I can accommodate that more
 7
    easily.
8
              So, okay with you?
 9
              MR. ELSENHEIMER: That's certainly fine
10
    with me.
11
              THE COURT: All right.
12
              MR. ELSENHEIMER: Your Honor?
13
              THE COURT: Yes.
              MR. ELSENHEIMER: We would invoke the rule
14
15
    for purposes of this hearing.
16
              THE COURT: So are there any witnesses that
17
    are observing that are not expert witnesses or case
18
    agents?
19
              MR. NAYBACK: Not on behalf of the
20
    United States, Your Honor.
21
              THE COURT: All right. So this being a
    video conference hearing it's, I guess, easier for us
2.2
23
    to keep track of who is observing.
24
              But to the extent there is a witness that
25
    I'm not aware of, I will require that that witness
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remain outside of the hearing process. So -- because
 1
    the rule has been invoked.
 2
 3
              So all right. Well, then, I assume,
 4
    Mr. Nayback, you're putting on the first witness, not
    Ms. Wilson?
 5
 6
              MR. NAYBACK: You are correct, Your Honor.
 7
    Thank you.
8
              THE COURT: All right. You may proceed.
 9
              MR. NAYBACK:
                             Thank you.
10
              The United States calls Saige Libertore to
    the virtual witness stand.
11
12
              THE COURT: Let me just state also, for the
13
    record, that we are doing all of this by Zoom video
14
    conference. The defendant is participating. I -- to
15
    the extent the defendant has a right to an in-person
16
    hearing on a motion to suppress or these various
17
    motions, I am operating under the assumption that the
    defendant has waived personal appearance.
18
19
              Is that right, Mr. Elsenheimer?
20
              MR. ELSENHEIMER: He is willing to waive
21
    the personal appearance. We haven't had him fill out
2.2
    a form yet, but we will give that to the Court.
23
              THE COURT: All right. Thank you.
24
              So we are ready for the witness to take the
25
    virtual witness stand.
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- 1 Thank you. And my clerk will administer
- 2 the oath.
- 3 SAIGE LIBERTORE, GOVERNMENT'S WITNESS, SWORN
- 4 DIRECT EXAMINATION
- 5 BY MR. NAYBACK:
- 6 Q. Miss, will you state and spell your full name
- 7 for the record?
- 8 A. Saige Libertore, S-A-I-G-E, L-I-B-E-R-T-O-R-E.
- 9 Q. Where do you work?
- 10 A. I work for the FBI laboratory in Quantico,
- 11 Virginia.
- 12 Q. What is your title?
- 13 A. I's am a visual information specialist.
- 14 Q. Can you tell the Court a little bit about your
- 15 | job description?
- 16 A. Yeah. So I go out and I document crime scenes
- 17 | with total station, scanning, photography, enhanced
- 18 | sketching, and I bring that data back to the
- 19 | laboratory, and I use it to reconstruct said crime
- 20 scenes.
- 21 Sometimes I'll reconstruct evidence as
- 22 | well. And that is peer reviewed, supervisor
- 23 | reviewed, and then we give it to the case agent or
- 24 whoever requested it.
- 25 Q. Can you describe your educational background?

- 1 A. Yes. I graduated with a bachelor's degree from
- 2 Ringling College of Art and Design in Sarasota,
- 3 | Florida, in 2017.
- 4 Q. Can you talk a little bit about your training
- 5 on the job at the FBI?
- 6 How do you learn how to put these crime
- 7 | scene models together?
- 8 A. So the bureau -- the FBI, they provide training
- 9 through classrooms. And then once you have the basic
- 10 understanding of the programs that we use and the
- 11 | techniques, we then go on to shadow senior visual
- 12 | information specialists, both in the laboratory and
- 13 on scene.
- And after a little while, once it's
- 15 determined that you understand our process, then
- 16 | we're able to go out on our own with the rest of our
- 17 | team and collect that data on our own.
- 18 Q. You touched on this briefly. But can you
- 19 explain, when you do work on a model, how is it
- 20 reviewed by supervisors and other peers?
- I mean, are they just looking at it or are
- 22 | they cross-checking measurements? Are they
- 23 interviewing you?
- 24 A. All of the above. So as the model is
- 25 | progressing, they come through at various milestones

- 1 and they will take measurements. They will look at
- 2 the data that I'm taking my measurements from, and
- 3 they will just double and triple check that I'm doing
- 4 everything correctly, that the scale conversions are
- 5 accurate.
- And once everything is complete, we'll have
- 7 another peer review it. And then a supervisor comes
- 8 in, and he does his own review before it's shipped
- 9 off.
- 10 Q. Okay. Ms. Libertore, I'm going to show you
- 11 some exhibits. Would you please let me know verbally
- 12 | whether you can see those when they come up on your
- 13 screen?
- 14 A. Of course.
- There we go.
- 16 Q. Ms. Libertore, I'm showing you what I believe
- 17 is Government's Exhibit 1 on your screen.
- Do you see that?
- 19 A. I do.
- 20 Q. Okay. Do you recognize what's in that
- 21 photograph?
- 22 A. Yes. That is the model that I constructed.
- 23 Q. Is it a fair and accurate depiction of the
- 24 model, as it left the FBI, before you sent it to
- 25 New Mexico?

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1
    Α.
          Yes.
               MR. NAYBACK: Your Honor, I move for
 2
 3
    admission of Government's Exhibit 1, just for
 4
    purposes of this hearing.
 5
               THE COURT: All right. Let me just -- I
    have received a binder of exhibits from -- that's
 6
 7
    labeled "United States Superseding Exhibits for
8
    Motions Hearing on November 5."
 9
              And I -- I see a Government Exhibit 1 that
10
    I -- I just want to be clear for the record. There
    is a Government's Exhibit 1 that is attached to
11
12
    Theodore J. Chavez's -- well, it is Theodore Chavez's
13
    CV or resume.
14
               And so I just want to make sure that the
15
    book that I have, that has two different exhibits
16
    marked Government's Exhibit 1. I just want to make
17
    the record clear, because I also have Government's
18
    Exhibit 1 as this photograph.
19
               So I've got two Government Exhibit 1s in
20
    this notebook.
21
               MR. NAYBACK: I apologize, Your Honor.
2.2
    That -- that's on me.
23
               There are three exhibits attached to
24
    Document 73, and they are listed as Government's
25
    Exhibits 1, 2, \text{ and } 3.
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So you wouldn't find them necessarily in
 1
    the binder; but they're, rather, attachments to
 2
    Doc 73. And it's actually -- the title of Doc 129 is
 3
    "Notice of Filing of Superseding Exhibits in Support
 4
    of Motion in Limine to use Demonstrative Exhibits at
 5
    Trial."
 6
 7
              So I apologize for the confusion.
    you'll let me know when I may proceed, or when the
8
 9
    Court has located it.
10
              THE COURT: All right. I just want to make
11
    sure that the record is clear.
12
              So I'm with you. You may proceed.
13
              Let me ask Mr. Elsenheimer, is there any
14
    objection to Government's Exhibit 1 for purposes of
15
    this hearing?
16
              MR. ELSENHEIMER: Not for purposes of this
17
    hearing, Your Honor.
18
              THE COURT: All right. So for purposes of
19
    the hearing, Government's Exhibit 1 is admitted.
20
              MR. NAYBACK: Thank you.
21
    BY MR. NAYBACK:
2.2
          And, Ms. Libertore, can you see the next
    Q.
23
    exhibit, Government's Exhibit 2?
24
              Does that show on your screen?
25
    Α.
          I think this is 3.
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- Okay. Is that 2? 1 Q. That's 2, yes. 2 Α. 3 Okay. And is this also a photograph of the Q. model that you created? It is. 5 Α. A fair and accurate depiction? 6 Q. 7 It is. Α.
- 8 MR. NAYBACK: I move Government's 2,
- 9 Your Honor.
- 10 THE COURT: Mr. Elsenheimer, any objection
- for the purposes of the hearing today? 11
- 12 MR. ELSENHEIMER: No, Your Honor.
- 13 THE COURT: All right. Government's
- 14 Exhibit 2 is admitted.
- 15 MR. NAYBACK: Thank you, Your Honor.
- BY MR. NAYBACK: 16
- 17 And Government's Exhibit 3, Ms. Libertore, do
- you recognize it? 18
- 19 I do. Α.
- 20 Does it appear to be a close-up shot of the
- 21 model that you created?
- 2.2 A. It is.
- 23 Q. A fair and accurate depiction of the actual
- 24 model?
- 25 A. Yes.

MR. NAYBACK: I move 3, Your Honor. 1 2 THE COURT: Mr. Elsenheimer, any objection? 3 MR. ELSENHEIMER: No, not for purposes of 4 this hearing. 5 THE COURT: All right. Government's 6 Exhibit 3 will also be admitted for today's hearing. 7 BY MR. NAYBACK: 8 So, Ms. Libertore, I'm going to leave these up 9 just for a minute and ask you a little bit about 10 them. 11 But can you talk about -- when you get an 12 assignment from a case agent or from a US Attorney's 13 office, can you explain to the Court how you go about creating a smaller version of an actual -- of an 14 15 alleged crime scene? 16 Yes. So I will typically receive an assignment Α. from a case agent, and they will discuss that they 17 want a representation of a crime scene. 18 19 So either I will receive data that has 20 already been collected, or I will go out with a team 21 and collect it myself. And once that data comes back 2.2 to the lab, I will use it to create a scaled down 23 version. 24 So with this one in particular, the data 25 had already been collected. So I used the total

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Q.

station measurements and the scan data, as well as some photography and aerial imagery, scaled it down to 5/16 scale, and then built it from there. How do you decide what scale to use? Α. This one, it had been decided by another visual information specialist, so I stuck with that scale. But typically, we will just decide -- it has to fit through doors, so usually we keep it under 35 inches wide. That's important to keep in mind. And with this one, it worked out in the 5/16 scale simply because of the scope of the model and the structures that needed to be included. Okay. So can you describe what is in the bottom left? It looks like a little placard. On this photograph, it looks like it's on the model as well. Can you describe, if you can read it, basically what that says so the Court knows? Yes. So that is an end plate, and it just has the address of where the scene is located. And it has the scale itself, so it will have the name of it. So 5/16 scale. And then it also has a ruler, so it can be checked by someone, and a north arrow indicator so people can orient themselves.

And can you explain how this scale worked?

- 5/16 of what is equal to a foot of what?
- 2 A. So 5/16 of an inch is 1 foot. And the scale
- 3 | conversion factor for that is .026. So when you're
- 4 taking the measurements from a one-to-one scale, you
- 5 | would just multiply the inches by 0.026, and you will
- 6 arrive at the 5/16 measurement.
- 7 Q. A few minutes ago you explained that you were
- 8 using data taken by a total station and photography.
- 9 Can you go a little bit more into depth as
- 10 | to your experience reading total station data and
- 11 kind of what total station data is?
- 12 A. Of course. So we collect total station data at
- 13 almost every scene that we deploy to. And it's a
- 14 | very popular survey data collecting method, where two
- 15 operators will choose certain points, whether those
- 16 are evidence, buildings, cars, bullet holes. And
- 17 | it's all shot into something that can be
- 18 | qeo referenced and placed back into a measurement.
- And we use that to build the bones of the
- 20 crime scene and also place evidence, place vehicles,
- 21 place structures, and you can take measurements from
- 22 that.

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- 23 Q. Okay. And then I see here in the model you
- 24 also have a number of trees and bushes which may or
- 25 | may not be important in this case.

Can you explain to the Court whether those 1 are to scale as well? 2 3 They are. So they -- vertically, you know, they -- I can't measure exactly how tall they are. 5 But I know that they are placed exactly where they 6 need to be, simply because the FARO scanner collected 7 everything in place. And that is very similar to a 8 total station, except instead of choosing a few dozen 9 points, you're choosing millions. 10 So each of those is measured, and I used 11 that data to place the foliage. 12 Why is the FBI asked to make models of crime 13 scenes? Is that helpful in some way? 14 It's very helpful to juries and witnesses, to 15 place themselves back in the scene. You know, a 16 picture is worth a thousand words, but a model is 17 worth a million, simply because it puts things into three-dimensional reality. And you know we may get 18 19 there eventually, but 3D digital is a little bit 20 disarming for some people. So -- especially for 21 witnesses who have a difficult time understanding 2.2 exactly where they were when the situation took 23 place. 24 It's just very helpful for people to place 25 themselves back into the scene.

- Final question, Ms. Libertore. 1 2 Are you confident that this model fairly 3 and accurately represents the alleged crime scene in this case? 4 5 Α. I am. 6 MR. NAYBACK: I'll pass the witness, 7 Your Honor. 8 THE COURT: All right. Thank you. 9 Mr. Elsenheimer, you may cross-examine the 10 witness. 11 MR. ELSENHEIMER: Thank you, Your Honor. 12 Can I ask the government to unshare their 13 screen? Maybe they already did. 14 THE COURT: They did. 15 MR. ELSENHEIMER: Thank you. 16 CROSS-EXAMINATION 17 BY MR. ELSENHEIMER: 18 Good morning, Ms. Libertore. Q. 19 Good morning. Α. 20 So did you ever visit the address at 21 825 Riverside Drive in Espanola? 2.2 Α. No. 23 Q. You never personally visited that location?
- A. No, I've never been there.
- 25 Q. Who was -- who was it that went there to

- 1 | collect the data?
- 2 A. It was the Albuquerque evidence response team
- 3 from the FBI.
- 4 Q. And do you know who that consisted of in this
- 5 case?
- 6 A. I would have to look up the names.
- 7 Q. Do you know when they visited the property at
- 8 825 Riverside Drive in Espanola to collect the data?
- 9 A. I don't have the date of that, but I could get
- 10 it for you.
- 11 Q. Do you have it available, readily available?
- 12 A. Not readily. I'd have to go to the office.
- 13 Q. You're not in the office right now?
- 14 A. No, sir.
- 15 Q. Okay. So how long -- well, do you know the
- 16 date of incident of the alleged -- of the allegations
- 17 | in this case?
- 18 A. I only know the [audio cutting out] date. But
- 19 I --
- 20 Q. What do you know that to be?
- 21 A. It was just a time stamp. But I would much
- 22 rather get the actual date for you.
- 23 Q. And do you have that information readily
- 24 available?
- 25 A. Again, that's in the office.

- 1 Q. Okay. Let me ask you this.
- 2 You said "time stamp." Are you referring
- 3 to a time stamp on the photographs that you looked
- 4 at?
- 5 A. Yes, sir.
- 6 Q. Okay. So that goes to my next question.
- 7 What -- let me ask you. Let's set aside
- 8 the data for a moment.
- 9 What other information did you look at to
- 10 familiarize yourself with this case?
- 11 A. I only looked at the scan data that was
- 12 | collected, the total station data that was shot on
- 13 scene, and the photographs that were taken.
- 14 Q. And let me just -- the photographs that were
- 15 taken, are you referring to the photographs that were
- 16 obtained by the data collection team or photographs
- 17 | obtained by other law enforcement officers at the
- 18 time of the incident?
- 19 A. The data collection team.
- 20 Q. Okay. So you haven't looked at anything from
- 21 any other law enforcement about photographs or -- or
- 22 | documents relat- -- taken at or shortly after the
- 23 | alleged incident in this case?
- 24 A. I also referenced an aerial imagery piece that
- 25 was pulled by the data collection team. So that

- 1 isn't specifically from the FBI. That would be
- 2 provided by Google Earth.
- 3 Q. Did you look at aerial data?
- 4 A. That would be the aerial data.
- 5 Q. Was there a drone or air- -- some type of
- 6 | aircraft?
- 7 A. Not that I'm aware of.
- 8 Q. And you didn't look at anything that was
- 9 collected by a drone?
- 10 A. No, sir.
- 11 Q. So you don't know when the data was collected?
- 12 A. I can get it to you.
- 13 Q. Do you -- and you don't know, off the top of
- 14 your head, the date of the incident in this case?
- 15 A. No, sir. Not off the top of my head.
- 16 Q. Okay. So off the top of your head, you don't
- 17 know how long it was between the date of the incident
- 18 and the date that the data was collected.
- 19 Is that right?
- 20 A. That's correct.
- 21 Q. Okay. Let me show you a few photographs, and
- 22 | perhaps that will -- if there is a time stamp or a
- 23 date stamp, that will refresh your recollection.
- Now, let me show you a photograph -- well,
- 25 | let me first go back and -- and show you what I've

- 1 | labeled as Defendant's Exhibit A.
- 2 And I think we've already discussed this,
- 3 but I have a couple of questions for you about it.
- Are you able to see that, Ms. Libertore?
- 5 A. I am.
- 6 Q. Okay. And can you just tell me what that is?
- 7 A. That is the nameplate that we discussed that
- 8 has the address of the incident, as well as the scale
- 9 and the north indicator.
- 10 Q. And so you said that 5/16 equals -- of an
- 11 | inch -- equals 1 foot.
- 12 You gave a decimal point. What was the
- 13 decimal number you gave?
- 14 A. That is 0.026.
- 15 0. And that's the conversion of 5/16 of an inch?
- 16 A. That is the scale conversion for model makers.
- 17 Q. Okay. So if one were to try to ascertain what
- 18 the scale is, we would take the -- let's say we were
- 19 looking at Point A to Point B, and there is 20 feet
- 20 | between Point A to Point B.
- 21 To get the scale conversion we would take
- 22 | 20 feet -- 20, and we would multiply that by 0.026.
- 23 Is that right?
- 24 A. You would have to convert the feet to inches
- 25 | first, and then multiply the inches by .026.

- 1 Q. I see. So it would be 20 times 12 times .026?
- 2 A. Yes.
- 3 Q. Okay. Thank you.
- 4 MR. ELSENHEIMER: Your Honor, I move
- 5 Defendant's Exhibit A.
- THE COURT: Is there objection?
- 7 MR. NAYBACK: No objection.
- 8 MR. ELSENHEIMER: For purposes of this
- 9 hearing.
- 10 THE COURT: Exhibit A is admitted.
- MR. ELSENHEIMER: Thank you.
- 12 BY MR. ELSENHEIMER:
- 13 Q. Ms. Libertore, let me show you
- 14 Defendant's Exhibit B.
- And this -- can you tell us what this is?
- 16 A. Yes, sir. That is the model that I
- 17 constructed.
- 18 Q. What is the directional -- so what is -- what's
- 19 the north, south, east, west, as it relates to this
- 20 model?
- 21 A. North would be to the right. So if we're
- 22 | looking at the corner that's closest to us, on the
- 23 | right side, that is the north side of the model.
- 24 Q. So the corner that it is closest to the bottom
- 25 of the screen --

- 1 A. Uh-huh.
- 2 Q. -- would be the north side of the model?
- 3 A. Yes, sir. The side to the right of that
- 4 corner.
- 5 Q. Okay. Okay.
- And now this particular model, there is --
- 7 just in from that north corner, there's a building or
- 8 the model of the building with a metal -- what
- 9 appears to be kind of a silver roof.
- 10 A. Uh-huh.
- 11 Q. What was -- what's your understanding of what
- 12 that building is?
- 13 A. That is, from my understanding, the residence
- 14 of the defendant.
- 15 Q. And that particular image right there, though,
- 16 is missing a separate building.
- 17 Is that right?
- 18 A. Yes, sir.
- 19 Q. And what building is it missing?
- 20 A. I'm not sure. It wasn't in my data.
- 21 Q. Well, let me show you Defendant's Exhibit B,
- 22 and then I'll come back to -- actually, I'm sorry, D.
- I'm sorry. Let me show you Defendant's
- 24 Exhibit E.
- So do you recognize this image here?

- 1 A. I've never seen this image before, but I do
- 2 recognize that that is the crime scene.
- 3 Q. Okay. And if we are looking at this particular
- 4 image, this would be -- the north would be to the
- 5 right of the image?
- 6 A. Yes, sir.
- 7 Q. And -- and is it right -- I just want to make
- 8 sure we're oriented.
- 9 Is it correct to say that the driveway and
- 10 | the road are to the bottom of the image?
- Is that correct?
- 12 A. Correct.
- 13 Q. And I'm going to put this image next to a prior
- 14 image.
- MR. ELSENHEIMER: If we can have a moment,
- 16 Your Honor. We need to put the images together and
- 17 then share.
- 18 While I'm waiting for that, I had
- 19 referenced Exhibit B. That was the model that you
- 20 put together.
- I would move the admission of Exhibit B as
- 22 well.
- THE COURT: Any objection, Mr. Nayback?
- MR. NAYBACK: No objection, Your Honor.
- THE COURT: Exhibit B is admitted.

BY MR. ELSENHEIMER:

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- 2 Q. So -- we're going to have to do these
- 3 separately, Ms. Libertore.
- 4 So the image I was just showing you, the
- 5 aerial view, there was another building there that is
- 6 | not in the model.
- 7 Is that correct?
- 8 A. Correct.
- 9 Q. And then there is a large section of the
- 10 driveway that is also not in the model.
- Is that correct?
- 12 A. Correct.
- 13 Q. And how much -- did you do any measurements of
- 14 | that particular driveway to ascertain how much of
- 15 that driveway -- or how far it is between the
- 16 building and the road that is not in the model?
- 17 A. So the data that I received only extended to
- 18 | the area that you're seeing. So I couldn't create
- 19 anything beyond that, simply because it was outside
- 20 the scope of our collection.
- 21 | O. I see. So the team that went here to collect
- 22 data never collected data from the front of the
- 23 | building.
- Is that correct?
- 25 A. As far as I'm aware.

- 1 Q. Okay. And by "the front of the building," I
- 2 mean the driveway and the view of the building from
- 3 the road.
- 4 That data was never collected?
- 5 A. As far as I'm aware.
- 6 Q. And let me -- so this is, I believe, Exhibit B.
- 7 Let me move to Exhibit C.
- 8 So, Ms. Libertore, this is another image of
- 9 the model. It's -- let me just -- tell me if I'm
- 10 wrong.
- This is a view of the model from what would
- 12 be the driveway in real life, correct?
- 13 A. Correct.
- 14 Q. And on the -- on the left of the screen is
- 15 another building.
- Can you describe that building for us, or
- 17 | what is your understanding of what that building is?
- 18 A. I believe it to be some sort of an apartment
- 19 complex.
- 20 Q. I'm sorry. What was that?
- 21 A. Is it part of an apartment complex, I believe?
- 22 Q. Is this the entire -- a representation of the
- 23 | entire building?
- 24 A. No.
- 25 Q. So it's -- it's only a section of that

- 1 building?
- 2 A. Correct.
- 3 Q. How much of the building is not included in the
- 4 model?
- 5 A. I don't have those measurements.
- 6 Q. Were you ever given those measurements?
- 7 A. No, sir.
- 8 MR. ELSENHEIMER: I would move the
- 9 admission, for purposes of this hearing, of
- 10 Exhibit C.
- 11 THE COURT: Any objection, Mr. Nayback?
- MR. NAYBACK: No objection, Your Honor.
- 13 Thank you.
- 14 THE COURT: All right. Exhibit C is
- 15 admitted.
- MR. ELSENHEIMER: Let me move -- move back
- 17 to Exhibit E.
- 18 BY MR. ELSENHEIMER:
- 19 Q. So here is Exhibit E. Again, I just want to
- 20 ask you: The entire front portion of the building,
- 21 which is basically in the middle of the screen, that
- 22 is not included in your model, correct?
- 23 A. Correct. It is not included.
- 24 Q. And the entire -- the entire driveway section
- 25 of this building is not included in your model,

- 1 correct?
- 2 A. Correct. That would have made the scale too
- 3 small.
- 4 Q. And a portion of the apartment complex that is
- 5 on the left of the image on the screen, a portion of
- 6 that -- and you don't know what portion -- is also
- 7 | not included in your model, correct?
- 8 A. Correct.
- 9 MR. ELSENHEIMER: I would move the
- 10 admission of Defendant's Exhibit E.
- 11 MR. NAYBACK: No objection.
- 12 THE COURT: All right. Exhibit E is
- 13 admitted.
- 14 BY MR. ELSENHEIMER:
- 15 Q. Just to ask you about your model.
- There's no real way to tell how far -- in
- 17 | the model, there's no way to tell how far the house
- 18 is to the street.
- So the house that's included in your model,
- 20 | there is no way to determine, from the model, how far
- 21 that house is from where the street would be.
- Is that correct?
- 23 A. Correct.
- 24 Q. And there is no way to determine how much
- 25 | farther the apartment building on the left extends,

- 1 based on your model, correct?
- 2 A. Correct.
- 3 Q. Did you -- you said that this model was an
- 4 accurate reflection of the crime scene. I think that
- 5 is what you said during your direct examination.
- 6 Is that right?
- 7 A. Yes.
- 8 Q. But you never looked at any images or pictures
- 9 taken at or around the time of the alleged incident.
- 10 Is that correct?
- 11 A. I did receive some images that were taken. And
- 12 I believe it was around the time of the crime scene.
- 13 But again, I would have to go into the office and get
- 14 | the time stamp for you.
- 15 Q. Okay. So there are -- there were photographs
- 16 | that you looked at that were around the time of the
- 17 alleged incident?
- 18 A. I would have to look at those time stamps.
- 19 Q. Okay. So let me ask you about the -- the --
- 20 some more details of the model.
- I'm going to bring up Defendant's
- 22 Exhibit G.
- 23 Are you able to see Defendant's Exhibit G
- 24 here?
- 25 A. Yes, sir.

- 1 Q. And can you just orient us to where this is as
- 2 | it pertains to your model?
- 3 A. Yes. So we're standing right in front of the
- 4 small carport with the tin roof shed. And you are
- 5 looking towards the front door of the defendant's
- 6 house.
- 7 Q. And this particular image is missing several
- 8 litems from what one would see if one were to look at
- 9 | a picture, an actual picture of this scene, correct?
- 10 A. Correct.
- 11 Q. Let me pull up Defendant's Exhibit H.
- So -- so let me ask you first, before I ask
- 13 | you about the image. Let me ask you: This does have
- 14 a time stamp of 5-5-2018.
- Have you viewed this image before?
- 16 A. No, sir.
- 17 Q. So this is not one of the images that you
- 18 | viewed, that were given to you by the -- by the FBI
- 19 or anybody else?
- 20 A. No, sir.
- 21 Q. Were you given any images with a time stamp of
- 22 5-5-2018?
- 23 A. I'd have to look.
- 24 Q. Well, can you -- can you tell us what this
- 25 | image is?

- 1 A. Yes. It is from a fairly similar perspective
- 2 to the exhibit we just had pulled up. And we are
- 3 looking towards the defendant's front door again.
- 4 Q. Okay. And this is what your model was trying
- 5 to reflect.
- 6 Is that right?
- 7 A. Correct.
- 8 Q. And not included in your model, though, are a
- 9 number of objects that we see in this image.
- 10 Is that right?
- 11 A. Right.
- 12 Q. So for example, there are marble kind of stone
- 13 blocks to the right of this picture on the screen.
- 14 | They're white in color.
- Do you see those?
- 16 A. Yes.
- 17 Q. They are not included in your model, right?
- 18 A. Right.
- 19 Q. And there are -- there are other trees that are
- 20 | in this image, on the picture, that are not included
- 21 | in your model, correct?
- 22 A. There are some smaller trees, correct.
- 23 Q. And those trees are not in the model?
- 24 A. Correct.
- 25 Q. And if we look -- looking toward the house. If

- we're looking toward the house, there are a number of 1 2 objects that are in that inside courtyard that are 3 not included in your model, right? 4 Α. Correct. 5 Q. Okay. MR. ELSENHEIMER: I would move 6 7 Defendant's Exhibit H for purposes of this hearing? 8 MR. NAYBACK: No objection. 9 THE COURT: Exhibit H is admitted. 10 BY MR. ELSENHEIMER: 11 Q. Let me move on to -- let me move on to 12 Defendant's Exhibit I. 13 Actually, I'm sorry. Let me go back to 14 Exhibit G -- I'm sorry. Defendant's Exhibit H. 15 So, Ms. Libertore, I'm not sure you can see 16 this. But toward the center of this picture, of this 17 photograph, there are -- there's a -- there's kind of 18 a big dolly that is -- do you see that? It's just 19 past the --20 Α. Uh-huh. 21 -- the fence, on the inside of the courtyard? Q. 2.2 Α. Yes. 23 Q. That's not included in your model either, is 24 it?
- 25 A. No, it is not.

- 1 Q. Okay. So -- and let me go to Defendant's
- 2 Exhibit I.
- 3 Do you recognize this?
- 4 A. Yes.
- 5 Q. And what is it?
- 6 A. It is the front door of the defendant's house.
- 7 Q. And -- okay. And there's a step down from the
- 8 front door.
- 9 Is that right?
- 10 A. Right.
- 11 Q. There are a number of objects in this
- 12 | particular image that are not included in your model,
- 13 right?
- 14 A. Correct.
- 15 Q. I don't want to go through an exhaustive list
- 16 of those exhibits. But I think, by process of
- 17 | elimination, what is actually -- the only thing
- 18 | included in your model is just the step, correct?
- 19 It's the first step, and then a small second step,
- 20 and then a third step.
- 21 Is that right?
- 22 A. Three steps, and the structures themselves.
- 23 Q. Okay. And that's the step that's coming out of
- 24 | that front door, correct?
- 25 A. Correct.

- 1 Q. Okay. So let me just go back very quickly to
- 2 Exhibit G, and see if we have a -- if there is a good
- 3 image.
- I want to ask you about the step that comes
- 5 out of the door.
- 6 Personally, I think it would be easier, but
- 7 I'm going to ask, to see if you -- if you have a good
- 8 enough view of this picture from the model.
- 9 But do you see where the top of that blue
- 10 step is?
- 11 A. Uh-huh.
- 12 Q. And then where the bottom of the door is, do
- 13 you see that?
- 14 A. Yes.
- 15 Q. And there's a space between there, correct?
- 16 A. Correct.
- 17 Q. How did you ascertain how far that space is
- 18 from the bottom of the door to the top of the step?
- 19 A. The steps were created using total station
- 20 data, which can meet the elevation.
- 21 Q. So it looks like there's -- there's -- I don't
- 22 | know how many, what the scale would be. But it looks
- 23 like there's some, relatively speaking, sizable space
- 24 between the bottom of the door and the top of the
- 25 step, right?

- 1 A. It's difficult to ascertain, simply because I
- 2 can't see where the seam of the door is from this
- 3 particular photograph.
- 4 Q. Well, you can see the bottom of the dark
- 5 portion, correct --
- 6 A. The window.
- 7 Q. -- on the door?
- 8 A. Yes, sir.
- 9 Q. And that's the bottom of the door?
- 10 A. I believe there's a little space between that
- 11 and the actual bottom of the door.
- 12 Q. Well, I'm not seeing it on this particular
- 13 picture.
- But let me go -- let me move to the next
- 15 exhibit, and actually one beyond that, Exhibit I.
- So you see there is the bottom of the door,
- 17 | correct?
- 18 A. Right.
- 19 Q. And then that screen section, that's a smaller
- 20 | space than what's reflected in the model, isn't it?
- 21 A. It's difficult to tell from the picture.
- 22 Q. The other thing that's not included in the
- 23 model.
- Do you see where the step is? On both the
- 25 | right side of the step is an extension of that little

- 1 porch, and on the left side of the step is an
- 2 extension of the porch that goes toward the left of
- 3 the screen, as we're looking at it, into the house.
- 4 Do you see that?
- 5 A. I see a shelf of some sort.
- 6 O. Correct. And then on the other side of the
- 7 step, going toward the right side of the screen, is
- 8 another extension of the porch.
- 9 Do you see that?
- 10 A. I see a blanket draped over something.
- 11 Q. Okay. And neither of those extensions, whether
- 12 | it's a shelf or an extension of the porch, neither of
- 13 those are included in the model, correct?
- 14 A. The total station data didn't collect that, no.
- 15 O. So this total station data doesn't take
- 16 pictures of everything?
- 17 A. No. The total station data, it is survey type
- 18 data, so it only chooses specific points and you go
- 19 from there.
- 20 Q. So it never took pictures of this section of
- 21 | the house?
- 22 A. No. It took measurements of the front steps.
- 23 Q. And that's it?
- 24 A. And the house -- I'll have to look at the data,
- 25 | if you'd like a better understanding of exactly what

- 1 the total station data collected.
- 2 But in terms of the front porch, it only
- 3 | collected the steps.
- 4 Q. And you don't have that data with you right
- 5 now?
- 6 A. No.
- 7 Q. Let me ask you this. Is this the first -- the
- 8 model we looked at, that the government showed you, I
- 9 think it's Government's Exhibit 1, is that the first
- 10 version of the model?
- 11 A. No, sir.
- 12 Q. There was a model -- there was a version before
- 13 | that, correct?
- 14 A. Correct.
- 15 Q. In that version of the model this particular
- 16 | step was different, wasn't it?
- 17 A. No, I believe it was the same.
- 18 Q. I'm sorry. Let me reask the question.
- The step in Version 1 of the model was in a
- 20 different place as it relates to the house?
- 21 A. I'm not sure.
- 22 Q. Did you look -- Okay. Let me ask you this.
- From Version 1 to Version 2, what changes
- 24 were made?
- 25 A. I would say I built up about 90 percent of

- 1 this, and only 10 percent of the original model
- 2 remained.
- 3 Q. What do you mean? I don't quite understand.
- 4 What do you mean by that?
- 5 A. So I had to create my own model, because I
- 6 | would be testifying to it, and I needed to testify to
- 7 my own work.
- 8 So I took the original model, and I made
- 9 whatever changes needed to be made, so that I could
- 10 | fairly say that was an accurate representation of the
- 11 scene.
- 12 Q. Who designed the first model?
- 13 A. Another individual information specialist who
- 14 has since retired.
- 15 Q. So you did not design the first model?
- 16 A. No, sir.
- 17 Q. Let me -- let me show you exhibit --
- 18 Defendant's Exhibit J.
- So again, this is a better image with
- 20 | the -- the dolly that I was speaking about earlier,
- 21 | the dolly with a trash can. It's toward -- just to
- 22 the right of center in the image.
- Do you see that?
- 24 A. I do.
- 25 Q. And that -- that's not included in the model,

- 1 correct?
- 2 A. Correct.
- 3 Q. And again, just for purposes of the hearing
- 4 today, can you just tell us what we're looking at
- 5 with this picture?
- 6 A. Yes. We're still looking at the front door of
- 7 | the defendant's house.
- 8 Q. Okay. And moving toward the bottom right of
- 9 the image, there is a fence. And against that fence
- 10 | there are a number of objects that are leaning.
- Do you see those? There's a red broom
- 12 | handle and some sticks?
- 13 A. Yes, I see those.
- 14 Q. Those are not included in your model, correct?
- 15 A. Correct.
- 16 Q. Let me ask you about the fencing that you used
- 17 | in your model.
- 18 How did you ascertain the dimension and the
- 19 size of the fence for the model?
- 20 A. I took measurements from the scan data and
- 21 | scaled those down. And I structured a fence that was
- 22 to 5/16 scale.
- 23 Q. And that -- you mean in terms of the height of
- 24 that fence?
- 25 A. The height of the fence, the space between the

- 1 wires and the gate, and the diameter of the posts.
- 2 Q. You mean the wires on the fence in the model?
- 3 A. Yes, sir.
- 4 Q. Okay. This wire here is a -- do you know what
- 5 kind of wire -- what kind of fencing it's called? Do
- 6 you know what that fencing is, how it's described?
- 7 A. I'm not sure.
- 8 Q. Just to -- I want to make sure I -- I think I
- 9 asked you this.
- 10 But those -- like the red broom handle and
- 11 | the sticks, all of those objects are not included in
- 12 | the model, right?
- 13 A. Those are not included.
- 14 Q. And do you see towards -- against the wall of
- 15 | the house and to the right of the front door, there
- 16 is a -- some shrubbery.
- Do you see that green shrubbery?
- 18 A. I do.
- 19 Q. That's not included in the model either,
- 20 correct?
- 21 A. Correct.
- 22 Q. Let me ask you this.
- The FARO -- the scanner. Is it called a
- 24 FARO scan?
- 25 A. Yes, FARO scanner.

- 1 Q. What does FARO stand for?
- 2 A. FARO is the name of the company that creates
- 3 the scanner.
- 4 Q. I see. And that gives -- it gives you
- 5 measurements between two points. So if I wanted to
- 6 | find a distance between Point A and B, I could look
- 7 at the FARO scanner, and that would give me an
- 8 accurate distance between the two, correct?
- 9 A. Correct.
- 10 Q. Does the FARO scan also give you elevation or
- 11 differences?
- 12 A. I'm sorry. Could you repeat the question?
- 13 Q. Does it give you elevation or altitude
- 14 differences between two points?
- 15 A. Yes.
- 16 Q. Okay. So for example, if you were taking a
- 17 | FARO scan of something that's on a piece of land and
- 18 | there's a light grade or a slope between Point A and
- 19 Point B, the FARO scan would reflect that, correct?
- 20 A. Correct.
- 21 Q. Was -- does your model reflect any difference
- 22 | in grade or slope between any different points on
- 23 | this particular -- at 825 Riverside?
- 24 A. It doesn't have topographical data, but it does
- 25 | reflect the difference in elevation of structures,

- 1 outhouses, and things like that.
- 2 Q. But the topographical data, it's all on the
- 3 same level, correct?
- 4 A. Correct.
- 5 Q. So if there was a topographical difference
- 6 between the porch and, let's say the other side of
- 7 | the model where the metal shed is, if there was a
- 8 topographical difference, the model would not reflect
- 9 | that topographical difference?
- 10 A. It should reflect it simply because it's all
- 11 built off of the same data.
- So you start at a central location and you
- 13 build your model out from that. So if you have a
- 14 | shed that's, you know, 6 feet higher than something
- 15 | in real life, it's going to be reflected in the
- 16 model.
- 17 Q. But if the model is flat, how is that -- how is
- 18 | that the case?
- 19 A. So we are just taking the data from the scanner
- 20 and the total station and using that to recreate an
- 21 | accurate representation of how the scene appeared.
- 22 And the -- from that measurement, I was
- 23 able to ascertain the -- according to the data, when
- I compared the elevation of, say, the steps to the
- 25 shed, it should be accurate.

- 1 Q. But if there's a grade between the steps and
- 2 the shed and the model itself, the bottom of the
- 3 model is flat, it wouldn't reflect the grade, would
- 4 it?
- 5 A. If it had been more extreme it would. But this
- 6 was all fairly flat.
- 7 Q. You say "fairly flat." But it's not flat.
- 8 There is a little bit of a difference in grade
- 9 between the --
- 10 A. Yeah.
- 11 Q. And your model doesn't reflect that. That's my
- 12 question.
- 13 A. Correct.
- 14 Q. Thank you. Let me move on --
- Oh, let me move for introduction of
- 16 | Defendant's Exhibit J.
- 17 THE COURT: Any objection to J?
- MR. NAYBACK: No, Your Honor.
- 19 THE COURT: All right. Exhibit J is
- 20 admitted.
- 21 BY MR. ELSENHEIMER:
- 22 Q. Let me move to Exhibit K.
- I don't have too many questions about this.
- 24 But this is -- why don't you just describe what the
- 25 | particular perspective this image gives you of your

- 1 model.
- 2 A. Okay. So this is us looking over the fence in
- 3 the courtyard of the defendant's property. We're
- 4 looking towards the shed and the apartment building
- 5 across the driveway.
- 6 Q. Do you recall, from your view of the FARO scan,
- 7 to the data you received from the data team, the
- 8 scans, this is not an area that is clear of debris
- 9 and objects, is it?
- 10 A. It is not.
- 11 Q. There are a lot -- there are a number of
- 12 objects that, on the FARO scan, are not included in
- 13 | this particular scene?
- 14 A. There were a number of objects and debris that
- 15 | were not depicted here.
- 16 Q. Okay. It's safe to say that one, in real life,
- 17 | wouldn't be able to look through this particular
- 18 | fence here, as -- as we are right now.
- 19 It's kind of covered with things, isn't it?
- 20 A. It had some debris stacked up against it.
- 21 Q. Okay. Thank you.
- Let me move on to -- oh, I'll move
- 23 Defendant's Exhibit K.
- THE COURT: Mr. Nayback, any objection?
- 25 MR. NAYBACK: No objection, Your Honor.

- 1 Thank you.
- 2 THE COURT: K is admitted.
- 3 BY MR. ELSENHEIMER:
- 4 Q. Let me move to -- I want to ask you about this
- 5 particular perspective. This is Defendant's
- 6 Exhibit L.
- 7 Tell me about -- if I am right, in terms of
- 8 perspective. This is a view of the inner courtyard
- 9 from the -- from the driveway.
- Is that correct, the driveway?
- 11 A. Correct.
- 12 Q. Okay. And there's a -- a tree to the right,
- 13 next to the house.
- 14 Is that right?
- 15 A. Right.
- 16 Q. And you said these trees are to scale.
- 17 A. They are placed in the model to scale.
- 18 Q. Okay. They are placed to scale, which is to
- 19 say that where they are kind of glued to the -- to
- 20 | the model, or to the board of the model, that's to
- 21 | scale, right?
- 22 A. Correct.
- 23 Q. Okay. But the size of the trees, the width or
- 24 | the narrowness of the trees, that's not necessarily
- 25 to model -- or to scale?

- 1 A. It's difficult to quantify trees, simply
- 2 because foliage changes. So they are there as
- 3 placeholders.
- 4 Q. Now this particular area here, this is -- and
- 5 by "this," the inner courtyard -- is surrounded by a
- 6 | fence, correct?
- 7 A. Correct.
- 8 Q. And we can see the fence. It's the metal fence
- 9 here?
- 10 A. Yes.
- 11 Q. Let me show you Defendant's Exhibit M.
- Do you see this image? Can you -- can you
- 13 describe what this image is?
- 14 A. Yes. This is us looking towards the courtyard
- 15 from the driveway.
- 16 Q. Okay. And the tree that's kind of just right
- 17 of center, that would be the tree that your model has
- 18 | right next to the house, right?
- 19 A. Correct.
- 20 Q. But it's a much larger tree that we see here,
- 21 | correct, than -- than what seems to be a scale tree
- 22 | in your model?
- 23 A. Oh. But it's --
- 24 Q. It's a bigger tree vertically.
- 25 Is that right?

- 1 A. Correct.
- 2 Q. And it's a slightly larger tree, or a larger
- 3 tree horizontally. Like the canopy of the tree is
- 4 larger than what it is in your model?
- 5 A. That's difficult data to capture. So yes.
- 6 Q. And to the -- just to the left of that tree on
- 7 our screen, there is a taller tree and then what
- 8 appears to be a shorter tree?
- 9 A. Correct.
- 10 Q. And again, is that shorter tree in your
- 11 | model -- and I can go back to the prior image, if you
- 12 would like me to.
- 13 A. If you could, that would be great.
- 14 Q. This?
- 15 A. Yes, it is.
- 16 Q. The shorter tree, where is it in your model?
- 17 A. It's, I believe, part of the shrubbery just to
- 18 | the left of that shed area, where everything is
- 19 condensed.
- 20 Q. So -- so by the "shed area," you're talking
- 21 about the white shed with the black roof that's
- 22 | inside the courtyard?
- 23 A. Yes, sir.
- Q. Okay. So you're saying it's to the left of
- 25 that?

- 1 A. The taller tree is the one directly to the left
- 2 of that.
- 3 Q. Okay. Is that the tree you're saying is the --
- 4 | that green shrub?
- 5 A. The taller one.
- 6 Q. Okay. So let me go back. Let's -- I want to
- 7 ask you about that taller tree.
- 8 Let's go back and see Defendant's
- 9 Exhibit M.
- 10 We can see the taller tree, correct?
- 11 A. Uh-huh.
- 12 Q. It's -- and then right next to that taller
- 13 tree, kind of toward the -- the -- toward the front
- 14 of the image, is a -- is a shorter tree that has a
- 15 wider canopy.
- That tree is not in your model, is it?
- 17 A. There are three trees in a line in that
- 18 | specific area that have fairly sizable trunks. And I
- 19 measured and placed those according to the scale of
- 20 the model.
- It's difficult, from this picture, to tell
- 22 | exactly which tree belongs to which trunk, simply
- 23 because of the foliage. So I don't want to say
- 24 something that is in the model or isn't, and
- 25 | vice versa.

- 1 Q. Okay. So that tree -- the canopy of that green
- 2 tree, maybe the trunk is to scale in the model, but
- 3 that canopy is not reflected in the model, is it? We
- 4 can go back to the model if you want.
- 5 A. Okay.
- 6 Q. I want to ask you about that canopy.
- 7 That canopy is not in that model?
- 8 A. In the data that I received, there was another
- 9 tree, which is the tree that you see to the left,
- 10 between the fence and the camper.
- If we're talking about the same tree, then
- 12 yes, it is in the model.
- 13 Q. But the canopy isn't -- doesn't reflect the
- 14 size of that canopy.
- 15 A. The canopy -- we could say that it's not
- 16 perfectly reflective.
- 17 Q. Okay. Thank you.
- 18 Let me move to Exhibit N.
- Before I do so, I would move
- 20 Defendant's Exhibit L, if I haven't done so, and
- 21 Exhibit M, if I have not done so.
- THE COURT: Any objection to L and M,
- 23 Mr. Nayback?
- MR. NAYBACK: None, Your Honor. No
- 25 objection.

- may have failed to also move Exhibit K. If I've failed to do so, I do so now. It was the image of the fence that we were looking at three images ago.
- 7 THE COURT: I think K was admitted.
- 8 MR. ELSENHEIMER: Okay. Thank you.
- 9 BY MR. ELSENHEIMER:
- 10 Q. So let me move to N.
- So, Ms. Libertore, can you just describe
- 12 | what we are looking at here?
- 13 A. That is a similar view looking into the
- 14 courtyard from the driveway.
- 15 Q. And this image -- let me just ask you about it.
- There are a number of trees and shrubs and
- 17 bushes. There's a lot of foliage that blocks one's
- 18 view of both the fence and the inner courtyard, and
- 19 to some extent, that shed with the white side and the
- grayish roof, correct?
- 21 A. Correct.
- 22 Q. And it makes it difficult, if not impossible,
- 23 to see inside the courtyard?
- 24 A. There's a lot of foliage.
- Q. And that amount of foliage that we see in this

particular image is not reflected in your model as it 1 2 is in this image, is it? 3 It -- it is reflected, for the most part. Α. Q. So let me go to Exhibit L again. 5 You're saying that where we can see the 6 fence on the right side -- so if we go to the side of 7 the house where the fence connects to the house, do 8 you see where I am talking about, to the -- just 9 right of center of the picture? 10 Α. Yes. 11 Q. And there's -- I don't know what the distance 12 would be, but several feet, that we can see of that 13 fence that's unobstructed by any type of foliage. 14 Do you see that? 15 It -- it is less than several feet. But yes, I 16 can see it. 17 Q. Okay. It's a couple feet? So that -- let's go back to Exhibit N. 18 19 And where, in exhibit -- well, this is 20 Exhibit N. Let's go to Exhibit N. 21 Where -- and there's no -- all of that side 2.2 of the house, where the fence connects to the house, 23 that's covered with foliage in this image, isn't it? 24 It is in this image. But in the data that I

25

was given, it wasn't.

- 1 Q. But in this image, it is?
- 2 A. Correct.
- 3 Q. Okay. Let me go back to Exhibit L.
- 4 Let me ask you about -- so just to orient
- 5 us, let's use, as a point of reference, the shed
- 6 that's in the -- in that little courtyard.
- Just to the left and down from that is the
- 8 top of the fence, right? And the top of the fence,
- 9 and then a little bit of the fence under there, maybe
- 10 | a foot, half a foot. I'm not sure how much it is to
- 11 scale.
- But there is a section of the fence that we
- 13 | can see, correct?
- 14 A. Correct.
- 15 Q. And then moving above the fence, there is a
- 16 section of that tree that we can see. The trunk,
- 17 where we can see the trunk. Not necessarily the
- 18 | foliage or the canopy, but we can see that trunk,
- 19 | correct?
- 20 A. Correct.
- 21 Q. And how many -- I mean, I'm guessing it is
- 22 | probably 3 feet. If we were to take a scale image of
- 23 | that, it's about 3 feet of that tree that's not
- 24 | covered by foliage going up from the fence, right?
- 25 A. I would have to measure it.

- 1 Q. Roughly 2, 3 feet?
- 2 A. I would have to measure it.
- 3 Q. Okay. But a good -- a good part of that tree,
- 4 from the bottom of it, is not covered by foliage in
- 5 this model?
- 6 A. Correct.
- 7 Q. Okay. Let's go back to Exhibit N.
- And so looking at this picture, where, in
- 9 this picture, is the top of that fence, and where is
- 10 anything that shows just the trunk of that tree?
- 11 A. The lighting in this image makes it difficult
- 12 to see.
- 13 Q. But you can see that there's a lot of foliage
- 14 | in and around the fence, above the fence, and going
- 15 up that tree, correct?
- 16 A. Correct.
- 17 Q. And let me go back to Exhibit M, because I
- 18 | think maybe you can see it in there as well.
- 19 You can see from here there's a lot of that
- 20 | foliage of that tree that the canopy of which comes
- 21 out. So just -- I'm sorry. I know this is tough
- 22 when we're not in person.
- But just to orient you to that, I'm talking
- 24 about the tree that its canopy kind of stretches to
- 25 the left of the tree and gets -- do you see that?

Yes. 1 Α. 2 Q. And again, that's not in the model. 3 And this particular image is covered with foliage and greenery -- green, kind of leaves and 4 shrubs. 5 6 And that's not reflected in your model, is it? 7 8 A. Correct. 9 Q. Okay. 10 MR. ELSENHEIMER: May I have just a moment, 11 Your Honor? 12 THE COURT: Yes. 13 MR. ELSENHEIMER: Before I forget, 14 Your Honor, I would like to move Defendant's 15 Exhibit N. I don't think I have done so yet. 16 THE COURT: Is there objection to N, 17 Mr. Nayback? 18 MR. NAYBACK: No objection, Your Honor. 19 THE COURT: N is admitted. 20 BY MR. ELSENHEIMER: 21 Q. Let me move on to -- I want to ask you about 2.2 the view of the back portion of the model, 23 Ms. Libertore, and I will move to 24 Defendant's Exhibit P.

MR. ELSENHEIMER: I'm sorry, Your Honor.

25

- 1 If I could have just a moment to bring up Exhibit P.
- 2 BY MR. ELSENHEIMER:
- 3 Q. Are you able to see that, Ms. Libertore?
- 4 A. Yes, I am.
- 5 Q. Okay. So what -- just directionally speaking,
- 6 if the kind of top right of the screen is the north
- 7 end, this here is the south end, or south?
- 8 A. We are looking directly to the north from the
- 9 south.
- 10 Q. Okay. This is directly south to north.
- 11 Let me ask you about -- that is -- well,
- 12 let's orient ourselves.
- There's a pole in the middle.
- Do you see that?
- 15 A. Yes.
- 16 Q. That's a telephone pole, correct?
- 17 A. Correct.
- 18 Q. Okay. Just to the -- like left and look down
- 19 from that moving south, there's a fence. It's kind
- 20 of like a wooden fence.
- Do you see that?
- 22 A. Yes.
- 23 Q. Okay. There's a woodpile in front of that
- 24 | fence, kind of to the north of that fence right
- 25 directly next to it.

- 1 A. Right.
- 2 Q. Do you remember looking at that in your -- from
- 3 the data you collected, or that they collected for
- 4 you?
- 5 A. Yes. Uh-huh.
- 6 Q. And that woodpile is not included in the model,
- 7 is it?
- 8 A. It is not.
- 9 MR. ELSENHEIMER: I will move
- 10 Defendant's Exhibit P.
- MR. NAYBACK: No objection.
- 12 THE COURT: Any objection?
- MR. NAYBACK: No objection, Your Honor.
- 14 THE COURT: Exhibit P is admitted.
- MR. ELSENHEIMER: Thank you.
- 16 BY MR. ELSENHEIMER:
- 17 Q. Let me bring up Exhibit Q.
- So what -- can you just describe this,
- 19 Ms. Libertore? Where is this from?
- 20 A. We are looking from the driveway to the shed
- 21 and the fence, which is in the western direction.
- 22 Q. Now, let me move on to Exhibit R.
- Do you recognize this image?
- 24 A. Yes.
- 25 Q. And what is it a view of?

- 1 A. We are looking from the driveway, in a slightly
- 2 Northwestern direction, towards the house.
- And you can see the telephone pole as well.
- 4 Q. Okay. So there's the telephone pole. And that
- 5 is the telephone pole that's in your model.
- 6 Is that right?
- 7 A. Correct.
- 8 Q. And there are kind of a number of things. I'm
- 9 not sure that you can see them. Let me know if you
- 10 can't see them.
- But there is a small kind of break, almost,
- 12 just left of center of the picture. There's a wooden
- 13 kind of like a bucket or a planter of sorts.
- Do you see that?
- 15 A. I do.
- 16 Q. And there are a couple of logs that are laying
- 17 on the ground next to that.
- 18 A. Yes.
- 19 Q. Do you see those?
- 20 A. Yes.
- 21 Q. And those are not in your model, are they?
- 22 A. They are not.
- 23 Q. Let me ask you this.
- 24 There's a -- to the right of this
- 25 | particular image there is a large shrub.

- 1 Do you see that large shrub?
- 2 A. Yes.
- 3 Q. And that's not in your model, is it?
- 4 A. That is outside the scope of the model.
- 5 Q. So no.
- 6 Ms. Libertore, we are going to try to zoom
- 7 | in on that a little bit. I want to ask you about
- 8 another tree towards the back of the property.
- 9 So just behind, or kind of on the western
- 10 | side of that telephone pole, there's another tree,
- 11 right?
- 12 A. Yes.
- 13 Q. And that's a tree with a wide canopy?
- 14 A. Correct.
- 15 Q. Let me go back to Exhibit Q.
- That tree, with the very wide canopy that
- 17 | we just looked at, is the tree that is just behind,
- 18 to the west, of the pole that is in your model,
- 19 correct?
- 20 A. It is.
- 21 Q. And I think it's safe to say that that canopy
- 22 | is not close to what it is in real life in your model
- 23 | is it?
- 24 A. Correct. It's just a representation.
- 25 Q. It's just a representation. But that is a much

- wider canopy in real life? 1 2 A. Correct. MR. ELSENHEIMER: I move in Defendant's 3 4 Exhibits P, Q and R. 5 THE COURT: P is already in. Q and R, any objection? 6 7 MR. NAYBACK: No, Your Honor. Thank you. 8 THE COURT: All right. Q and R are 9 admitted. 10 BY MR. ELSENHEIMER: Q. When you receive -- so we talked about the 11 12 first version of the model and the second version of 13 the model. 14 When you received the second version -- I'm 15 sorry. When you received the first version of the 16 model you said you made changes to it, right? 17 Α. Yes. 18 And did you consult with anybody about what Ο. 19 changes should be made to that model? 20 I did. Α. 21 Did anybody tell you particular changes that should be made to the model? 2.2 23 Α. No. I made those decisions, but I ran it by my
- Q. What were the changes? Would you be able to

supervisor, who agreed.

24

- 1 describe them for us?
- 2 A. So it's difficult to quantify exactly what
- 3 those changes were, simply because this is mostly a
- 4 model built from the ground up by myself. So it was
- 5 a model that was built pretty much originally from
- 6 square one, from the data that I received.
- 7 Q. So what happened to Version 1? Is that --
- 8 A. It's no longer a model.
- 9 Q. Okay.
- MR. ELSENHEIMER: May I have just a moment,
- 11 Your Honor?
- 12 THE COURT: Yes.
- 13 BY MR. ELSENHEIMER:
- 14 Q. So in terms of -- you were asked to construct a
- 15 model of a particular alleged crime scene.
- 16 Is that right?
- 17 A. Correct.
- 18 Q. Did you take into account the difference in
- 19 seasons between when the data was collected and when
- 20 | the alleged incident took place?
- 21 A. I did.
- 22 Q. When and how did you take that into account?
- 23 A. I knew that a considerable amount of time had
- 24 passed between when the incident took place and when
- 25 the data that I received had been collected, which is

- 1 why you only see a small amount of foliage, and the
- 2 big trees placed where they should be, simply because
- 3 I had no way of knowing exactly what leaves were
- 4 placed where and what debris was placed where, or how
- 5 much wood was in that fire pit.
- So I just took everything that I knew was
- 7 | in the structure and large landscaping, and placed it
- 8 according to the data.
- 9 Q. How did you ascertain the type of foliage from
- 10 the time of the alleged incident?
- 11 A. So where I had pictures from the time of the
- 12 | incident, I placed those trees.
- And of course if you have a tree that's
- 14 | 30 years old or something like that, with the trunk
- 15 | that's a sizable diameter, that has been there for a
- 16 | few years, so I placed that.
- 17 Q. So just to go to exhibit -- Defendant's
- 18 Exhibit N.
- So this is an image taken on -- you see the
- 20 | time stamp -- or the date stamp at the bottom of the
- 21 image, correct? It was taken on 5-5-2018.
- 22 A. Yes, sir.
- 23 Q. The day of -- I mean, short- -- shortly after,
- 24 almost within hours after the alleged incident. Did
- 25 | you review this particular image in constructing your

- 1 model?
- 2 A. I did not.
- 3 Q. And as we have discussed, there's -- there are
- 4 leaves and foliage in this image that is not
- 5 reflected in your model, correct?
- 6 A. Correct.
- 7 Q. And so the model isn't based on images drawn
- 8 from the scene of the alleged crime?
- 9 A. They are drawn from the scene of this incident.
- 10 Q. Taken a year later, right?
- 11 A. The measurements were.
- 12 Q. The measurements were taken a year later. And
- 13 | the FARO scans were taken, actually, over a year
- 14 later, correct?
- 15 A. I don't know the exact date, but I know some
- 16 | time had elapsed.
- 17 Q. It was a considerable amount of time that had
- 18 elapsed?
- 19 A. Correct.
- 20 Q. You just said that.
- 21 And all of the pictures that I've shown you
- 22 of the -- of the scene, except for the aerial photos,
- 23 but these photos that have 5-5-2018, let me ask you.
- You never looked at or consulted any of
- 25 | those particular images?

None of the ones that you've shown me. 1 Α. MR. NAYBACK: Objection --2 THE COURT: I'm sorry. I couldn't hear 3 4 you, Mr. Nayback. MR. NAYBACK: I'm sorry. I was talking 5 over the witness. 6 7 But the objection was that it has been 8 asked and answered. 9 MR. ELSENHEIMER: I'll move on. 10 THE COURT: Thank you. 11 BY MR. ELSENHEIMER: 12 Does your model take into account the time of 13 day that the alleged incident took place? So that it 14 took place in the middle of the night under darkness. 15 Did your model take that into account? 16 Α. Measurements don't change from time of day to 17 time of day. Do you know when the first model was peer 18 19 reviewed, that first model that you were talking 20 about? 21 A. No. I --2.2 MR. NAYBACK: Objection; relevance, 23 Your Honor. 24 THE COURT: You'll have to tell me why this

25

is relevant, Mr. Elsenheimer.

```
1
               MR. ELSENHEIMER: I'm just -- I'm wondering
    about the differences between Version 1 of the model
 2
 3
    and Version 2 of the model, and why there was
    significant changes made to Version 2.
 5
               THE COURT: Well, I think she's already
    talked to some of that, but I don't see that it's
 6
 7
    particularly useful for today's hearing. So...
 8
               MR. ELSENHEIMER: I'll move on.
 9
               THE COURT: Thank you.
10
    BY MR. ELSENHEIMER:
11
          You discussed the training that you've had.
    0.
12
               How long have you worked for the FBI?
13
          Two years and a month.
    Α.
14
          And how many crime scenes have you done,
15
    collected data on, and reproduced a model for?
    Α.
16
          Close to 20 scenes for data collection.
17
               And product design, I've done eight
    physical models and nine digital 3D models.
18
19
    Q.
          You said you've been with the FBI for over
20
    two years.
21
    Α.
          Yes, sir.
2.2
          Have you always been a visual information
    Q.
23
    specialist?
24
          I have.
    Α.
```

We've discussed a lot of particular features of

25

Q.

- the property -- objects, shrubs, trees -- that are
 not included in the model.
- My question is: How did you determine what to include in the model and what to leave out of the model?
- A. Everything that is a removable structure or a vehicle, I included. And if there were large trees,
- 9 If I had pictures from the time of the 10 incident, I included the main foliage that I was able
- 11 to see. But anything that was small and removable, I
- 12 can't testify to the fact that that was there at the
- 13 time of the incident, so I didn't include it.
- 14 Q. It is safe to say that the quality of a
- particular model is dependent on the quality of the
- 16 scan data.

8

17 Is that correct?

I included those as well.

- 18 A. The accuracy of it.
- 19 Q. It's dependent on the quality or the accuracy
- 20 of the scan data.
- 21 Is that right?
- 22 A. All types of data collection. So whether it's
- 23 the scan data, the total station data, the
- 24 photography, it's accurate to say.
- 25 Q. Do you have any certifications or licenses?

```
I do in FARO scanning.
 1
    Α.
 2
         You have a license or a certification in FARO
 3
    scanning?
          I do. And I have a certification in AutoCAD,
 4
 5
    which is the program we use for measuring total
 6
    station data. And we can use it for scan data as
 7
    well.
8
              MR. ELSENHEIMER: Nothing further,
 9
    Your Honor.
10
               I'll pass the witness.
11
               THE COURT: Do you have anything further,
12
    Mr. Nayback?
13
              MR. NAYBACK: I do not, Your Honor.
                                                     Thank
14
    you.
15
               THE COURT: May this witness be excused
16
    from this hearing?
17
              MR. NAYBACK: She may.
18
               MR. ELSENHEIMER: Yes, Your Honor.
19
               THE COURT: All right.
20
               Thank you for your testimony today,
21
    Ms. Libertore.
2.2
               THE WITNESS: Thank you, Your Honor.
23
               THE COURT: Mr. Nayback, you may call your
```

MR. NAYBACK: Your Honor, we would be

24

25

next witness.

```
moving for this model.
 1
              The witness testimony is complete. We'd be
 2
 3
    happy to offer brief argument, but if the Court
 4
    doesn't need any, we would be going on to the next
 5
    witness, which is Theodore Chavez, who did our --
 6
    which is more of a Daubert hearing, I understand.
 7
    Ms. Libertore was just a foundational witness.
 8
              So however the Court wants to proceed.
                                                        I'm
    happy to make brief argument or to move on to the
 9
10
    next witness.
11
              THE COURT: Move on, please.
12
              MR. NAYBACK: Thank you, Your Honor.
13
              Ms. Wilson will be handling that witness.
14
              THE COURT: All right.
15
              MS. WILSON: The United States calls
16
    Theodore Chavez.
17
               (Witness duly sworn.)
18
              THE COURT: So, Mr. Chavez, before we
19
    begin, let me just ask you to spell your first and
    last name for the record, please.
20
21
              THE WITNESS: The first name is spelled
2.2
    T-H-E-O-D-O-R-E. The last name, Chavez, C-H-A-V-E-Z.
23
              THE COURT: Thank you.
24
              You may proceed, Ms. Wilson.
25
               (Discussion off the record.)
```

- 1 (A recess was taken from 10:22 a.m. to
- 2 10:27 a.m.)
- 3 THEODORE CHAVEZ, GOVERNMENT'S WITNESS, SWORN
- 4 <u>DIRECT EXAMINATION</u>
- 5 BY MS. WILSON:
- 6 Q. Okay. Are you ready, Mr. Chavez?
- 7 A. I am, yes.
- 8 Q. What do you do for a living, sir?
- 9 A. I'm employed by the Federal Bureau of
- 10 | Investigation, located in Quantico, Virginia.
- 11 Q. And what is your formal title?
- 12 A. I'm a forensic examiner, who is qualified in
- 13 the discipline of firearms and tool mark discipline.
- 14 Q. What are your responsibilities in that
- 15 position?
- 16 A. My primary responsibilities as an examiner are
- 17 | to receive evidence relating to firearms and tool
- 18 marks, to include shooting incident reconstruction
- 19 requests, conducting examination on such items or
- 20 | requests, generating a lab report, and being able to
- 21 | testify to those results in a court of law.
- 22 Q. And how long have you been employed with the
- 23 FBI?
- 24 A. Approximately ten years, since 2009.
- 25 Q. And, sir, are you familiar with the methods and

- 1 procedures employed by the FBI relating to firearm
- 2 | trajectory analysis?
- 3 A. Yes, I am. Those are currently referred to as
- 4 our laboratory operation manual, our standard
- 5 operating procedures.
- I am also a quality assurance manager for
- 7 those documents.
- 8 Q. And in addition to the firearm trajectory
- 9 analysis, what other areas do you work in as a
- 10 | scientist for the FBI?
- 11 A. I'm qualified in the disciplines of firearms
- 12 evidence, so that being any type of firearm that is
- 13 | submitted -- bullets, cartridge cases, tool marks --
- 14 | if they are suspect of a burglary or some cut item.
- 15 Also gunshot residue, distance
- 16 determination. A victim is shot and there's a
- 17 | question of how close or what was the approximate
- 18 distance.
- 19 And then also shooting incident
- 20 reconstruction, trying to generate information about
- 21 that shooting based on objects or areas.
- 22 Q. Thank you. If I may show you what has been
- 23 marked for identification purposes, for the purposes
- 24 of this hearing, as Government's Exhibit 1.
- Let me know if you see that on your screen.

```
Do you see that, sir?
 1
          Yes, I see it.
 2
    Α.
 3
          Do you recognize it?
    Q.
 4
    Α.
          I do recognize it by my name up on the top and
    the revision date at the bottom of November 15, 2019.
 5
 6
    0.
          Is it a fair and accurate depiction of your --
 7
    can you explain what it is for the Court?
 8
          Sure. It's broken up into three parts:
 9
    professional experience, outlining training, as well
10
    as current responsibilities and prior experience with
11
    the FBI. Education, as well as testimony experience
12
    within the discipline.
13
         So that is your CV, sir?
    Q.
14
       That is correct.
    Α.
15
          And is this a fair and accurate depiction of
    0.
16
    your CV?
17
        That is correct.
    Α.
18
              MS. WILSON: I move Government's Exhibit
19
    Number 1.
20
               THE COURT: Is there objection,
21
    Mr. Elsenheimer?
2.2
              MR. ELSENHEIMER: No objection, Your Honor.
23
              THE COURT: All right. Thank you.
24
               Exhibit 1 is admitted.
```

25

BY MS. WILSON:

- 2 Q. You alluded to this section earlier.
- 3 Could you describe for the Court your
- 4 educational background?
- 5 A. Sure. I received a bachelor's of science in
- 6 physics from St. Vincent College, which is located in
- 7 Latrobe, Pennsylvania.
- 8 Q. And how does your physics degree relate to the
- 9 area of trajectory analysis?
- 10 A. First, the examiner position for the FBI lab
- 11 | requires a science background. And so my degree in
- 12 physics allowed me to have the foundational
- 13 experience that was critical to being, then, able to
- 14 enter into their examiner training program.
- 15 Q. And generally, could you describe the
- 16 | specialized training you've received since becoming
- 17 employed at the FBI that qualifies you for your
- 18 | analysis, your special analysis?
- 19 A. My training program was approximately
- 20 three years. So any new examiner will enter into a
- 21 | training program that is basically a training manual
- 22 outlining various elements. And this can be
- 23 | classroom based, instruction based, as well as
- 24 on-the-job training.
- Those elements will cover various aspects

- 1 of different items that are routinely submitted, to
- 2 include a lot of the administrative, such as travel,
- 3 discovery, and also understanding of the operating
- 4 procedures of the lab.
- 5 The way that an examiner will be able to
- 6 pass the program is through a series of competency
- 7 | tests, as well as three moot courts and three oral
- 8 boards.
- 9 Upon completion of those tests, as well as
- 10 | all signatures of the training manual, the examiner
- 11 | is then qualified within that discipline.
- 12 Q. Thank you. And of that -- and this includes
- 13 your expertise in trajectory analysis, specific just
- 14 | to trajectory analysis?
- 15 A. I'm sorry. My CV or the training program?
- 16 Q. The training program.
- 17 A. Yes. The training program will highlight
- 18 elements relating to trajectory analysis.
- 19 Q. How many cases, approximately, have you
- 20 performed trajectory analysis in?
- 21 A. I've conducted examinations in approximately
- 22 | 30 cases. But I've also technically reviewed a
- 23 number of cases for other examiners.
- 24 Q. And have you testified in court as an expert in
- 25 | trajectory analysis?

- A. I have, yes, one time.
- 2 Q. And you've also testified as an expert
- 3 regarding other issues as well.
- 4 Is that correct?
- 5 A. That is also correct.
- 6 Q. Could you describe briefly for the Court what
- 7 types of courts you were considered to be an expert
- 8 in?

- 9 A. Sure. Displayed up on the screen there at the
- 10 bottom is testimony experience. So approximately 11
- 11 | times, or 11 times I've testified. Seven of those
- 12 times in federal court and four in state court.
- MS. WILSON: Your Honor, at this time the
- 14 United States would offer Mr. Chavez as an expert in
- 15 the field of firearm trajectory analysis with the
- 16 ability to testify to opinions and analysis therein.
- 17 THE COURT: Any objection, Mr. Elsenheimer?
- MR. ELSENHEIMER: Yes. We object to his
- 19 testifying as an expert. So that's the purpose of
- 20 this hearing, as I understand it.
- 21 THE COURT: Right. That is the purpose of
- 22 the hearing.
- So having tendered, then, the expert,
- 24 Mr. Elsenheimer, would you like to conduct any
- 25 examination at this time?

- 1 MR. ELSENHEIMER: I could voir dire him now
- 2 as an expert. But I could also do so at the end, as
- 3 part of cross-examination. It's whatever you would
- 4 like.
- 5 THE COURT: Well, why don't you voir dire
- 6 the witness now, please.
- 7 MR. ELSENHEIMER: Thank you, Your Honor.
- 8 <u>VOIR DIRE EXAMINATION</u>
- 9 BY MR. ELSENHEIMER:
- 10 Q. Good morning, Mr. Chavez.
- 11 A. Good morning.
- 12 Q. Did you -- let me just -- I want to be sure I
- 13 understand what you just testified to.
- 14 You said you testified as an expert, did
- 15 you say, 11 times?
- 16 A. That is correct.
- 17 Q. And those are the cases listed at the bottom of
- 18 your resume.
- 19 Is that right?
- 20 A. That's right.
- 21 Q. How many times have you testified as an expert
- 22 | for trajectory analysis?
- 23 A. One time in federal court.
- 24 Q. And where was that?
- 25 A. That was located in Jacksonville, Florida.

- 1 Q. And so the other times testifying, was that as
- 2 a fact witness or an expert witness in something
- 3 other than -- I'm sorry. That was a bad question.
- 4 Was that as a fact witness?
- 5 A. No.
- 6 Q. The other times that you listed, those are as
- 7 an expert witness, but in something other than
- 8 trajectory analysis?
- 9 A. Every time that I've testified has been to an
- 10 expert witness within the discipline of firearms and
- 11 tool marks.
- 12 Q. I see. Thank you.
- And what was your undergraduate degree in?
- 14 A. It was in physics, with a major in physics and
- 15 a minor in mathematics.
- 16 Q. Do you have any advanced degrees in physics?
- 17 A. I do not.
- 18 Q. How long have you worked for the FBI?
- 19 A. Approximately ten years, since 2009.
- 20 Q. And have you taken any advanced courses in
- 21 | trajectory analysis?
- 22 A. I did complete the training program and also
- 23 served as an instructor for the shooting incident
- 24 reconstruction course that is -- that is commonly
- 25 | afforded to evidence response team personnel

- 1 throughout all of our field offices.
- 2 Q. Did you take any undergraduate courses in
- 3 trajectory analysis?
- 4 A. No undergraduate studies, no.
- 5 Q. Were you ever excluded as a witness in -- as an
- 6 expert in trajectory analysis?
- 7 A. No, I have not.
- 8 Q. Have you ever been involved in peer review of
- 9 other individuals' work on the topic of trajectory
- 10 | analysis?
- 11 A. Yes. Within the capacity of a technical, as
- 12 | well as an administrative reviewer.
- 13 O. What is a technical reviewer?
- 14 | A. Our quality system, in order for a product to
- 15 be released, has to first go through a technical
- 16 review. The technical review is conducted by another
- 17 | qualified examiner within that discipline, so looking
- 18 at all of the records that are supporting the results
- 19 | that is ultimately issued within the laboratory
- 20 report.
- MR. ELSENHEIMER: May I have a moment,
- 22 Your Honor?
- THE COURT: Yes.
- MR. ELSENHEIMER: Your Honor, I have no
- 25 other questions. We don't object to Mr. Chavez as an

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expert. Our objection still stands as it pertains to
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    the Daubert factors with regard to the evidence he's
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 3
    testifying about for this case.
 4
               THE COURT: All right. So, Ms. Wilson, you
 5
    may proceed.
 6
               And the Court will recognize Mr. Chavez as
 7
    an expert in the area of trajectory analysis.
 8
               MS. WILSON:
                            Thank you, Your Honor.
 9
                DIRECT EXAMINATION (Continued)
10
    BY MS. WILSON:
11
          Mr. Chavez, did you prepare, in preparation for
    Ο.
12
    today's hearing, a slide presenta- -- a slide to
13
    assist with your testimony today?
          Yes, I did.
14
    Α.
15
          Let me show you what has been marked for
    Ο.
16
    identification purposes as Government's Exhibit 2.
17
               Sir, do you recognize these? And I'm going
    to go through, actually, Exhibits 2, 3, and 4.
18
19
    you'll let me know when you're done looking at each
20
    page.
21
    Α.
          Yes.
2.2
          That was Government's Exhibit 2.
    Q.
23
               Do you recognize that, sir?
24
          Yes, I recognize it.
    Α.
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And Government's Exhibit 3 and Government's

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18 19 20 21 today?

> MR. ELSENHEIMER: I have no objection. THE COURT: All right. Exhibits --

Government's Exhibits 2, 3, and 4 are admitted.

- 1 BY MS. WILSON:
- Q. Mr. Chavez, could you explain to us, what is
- 3 firearm trajectory?
- 4 A. Trajectory analysis, for this slide here, is
- 5 broken up into five different elements.
- It's critical to know that when a bullet,
- 7 or when a projectile takes flight, there will either
- 8 be several elements that are considered as a result
- 9 of establishing, first, where it originated, what
- 10 litems may it have hit or encountered. Potentially,
- 11 | if it just took a path to a proximate directionality.
- 12 And that fifth element there, sometimes the general
- 13 | shape or characteristic of a hole or an impact can be
- 14 of value, just depending on the characteristics that
- 15 | are surrounding that area.
- 16 Q. And you --
- 17 A. And simply put -- I'm sorry.
- 18 Simply put, in order to create a -- or
- 19 approximate a path of a projectile, there needs to be
- 20 two points. Those two points then create a line
- 21 | indicating the path of that bullet.
- 22 Q. And can you explain what happens when the FBI
- 23 | is asked to perform trajectory analysis?
- 24 A. Sure. So on this slide, we have a general work
- 25 | flow of the process that takes place. So there on

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the left-hand side is a process map showing a large
picture of when an incident occurs and all of the
resources, to include certain elements of the
laboratory that will respond to assist that incident.
          On the right-hand side is a detailed
synopsis of all of the elements that can be provided
on scene as a result of a shooting investigation.
     And can you explain how this works, when you --
once you get a call, what happens?
     So from the process map we're pulling certain
elements that are critical to my unit, which is the
firearms and tool marks unit, as well as the
operational projects unit.
          Those two units are two of the four units
that serve on the laboratory shooting reconstruction
team. So when a shooting occurs there will be a team
deployed out. And it generally begins with a
conference call of, Okay. What's the area,
approximate number of shooters?
          We start developing a plan, or an op- -- a
plan as a mission, or an operational meeting.
type of assets need to be sent out? Should several
teams be sent out or just a five-person team?
          When we talk about scene deployment,
that's, Okay. What type of location are we going to?
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Are we -- what type of weather elements may we
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 2
    encounter?
 3
               And finally that last bullet, depending on
 4
    the type of the scene, what type of equipment are we
 5
    sending out in anticipation of the laboratory
 6
    products?
 7
          And you alluded to this a little bit.
 8
               Can you explain to the Court a little bit
    about the laboratory team method at the FBI?
 9
10
          Sure.
                  So in the table, I broke it down by
    Α.
11
    observation, imaging, and measurement. So this is
12
    kind of a detailed understanding of those.
13
               Here we've highlighted -- or I've
    highlighted three of the four teams. So the firearms
14
15
    and tool marks unit, which I'm a member of; the
16
    operational projects unit; and the evidence response
17
    team.
18
               The evidence response team -- we have our
19
    teams that are spread out throughout the
20
    United States.
21
               So the second column there, when we deal
2.2
    with imaging, it refers to the responsibilities, in
23
    my case as an examiner, to analyze the defects and to
    begin identifying entrance or exit holes.
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               You see there the other responsibilities
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There are different elements that I'm

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highlighting here: competency testing, proficiency testing, validation, and empirical studies. When I talked about the training program earlier, I dealt -- it dealt with a competency test. Most recently, we all were competency tested on a vehicle, meaning each examiner was assigned to reconstruct this vehicle and take measurements. And from that, develop any type of uncertainty as a result of measurements taken by individual examiners. When I mention proficiency testing, there are accredited forensic test providers that are developing tests to then issue out to forensic laboratories, to include -- the scope of forensic accreditation is something that is being offered by an accrediting body, such as one that the FBI lab is accredited by ANAB, which stands for ANSI National Accreditation Board. And within that acronym is also -- ANSI stands for the American National Standards Institute. And so they also have a scope for trajectory analysis that forensic laboratories can show that they are competent in conducting casework. Validation and empirical studies are often done by examiners, to include researchers or

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universities, again, further challenging trajectory
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    analysis and those elements.
               The second factor is, trajectory analysis,
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    can it be -- is it subjected to peer review and
 5
    publication?
               The three listed there at the bottom are
 6
 7
    all common for professional organizations within
 8
    forensic science. So the AFTE Journal, as well as
 9
    the American Academy of Forensic Sciences, all have
10
    articles relating to trajectory analysis and are
11
    constantly challenging specific areas, such as a
12
    bullet traveling through different types of material,
13
    deflection of a bullet, if a bullet were to fall
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    apart and it creates two separate paths.
15
               So there at the top, highlighting,
16
    basically, overall in textbooks, reinforce this --
17
    these common foundational scientific principles that
18
    relate back to physics and math. I need to gather
19
    this point X, Y, and Z.
20
               Military training guidance, there is some
21
    information of a projectile taking flight and how it
2.2
    may impact an end object.
23
               And then I highlight the journals there at
24
    the bottom.
25
               The third element is, what is -- you know,
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the question is: What is the known and potential 1 error rate for projectile analysis? 2 3 I mentioned this earlier, about a vehicle 4 being processed by 11 different examiners. 5 So during that process there may be an 6 uncertainty that is developed as a result of the 7 bullet passing through different types of material. 8 In the case of a vehicle, it will first 9 pass through -- say, for instance, the shot was from 10 the driver's side. It will first pass through metal, 11 likely some type of polymer material or liner. 12 may then pass into a softer object, such as the seat 13 cushion. And so those are different elements where 14 15 there could be some uncertainty developed as a result 16 of trying to establish a trajectory. 17 The second point there, directionality. some cases there may be an erroneous determination of 18 a trajectory based on directionality. And so ways 19 20 for us to mitigate that are highlighted by our 21 quality assurance review process. So ensuring that 2.2 if there are field notes taken and it is put into a 23 report, that ultimately -- that report will then get 24 a technical or an administrative review prior to

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issuance.

The fourth factor, which questions the existence and maintenance of standards and controls for trajectory analysis, is highlighted by the comprehensive training program.

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So I mentioned that there are elements that an examiner in training may conduct independently. There are also situations where the examiner will go out with a qualified examiner to better understand different elements that may be encountered on scene, as well as their ultimate qualifications, being able to provide any testimony within the trajectory analysis.

The second there, quality system, explaining this a little bit more, is that our laboratory operations manual, our standard operating procedures, all provide sort of that robust insurance that any time we are to go out on scene, it is being handled in a manner that is unbiased to any type of other information, and further supported by the technical, as well as administrative reviews.

Lastly, accreditation programs. mentioned ANAB. There are other accrediting bodies that also look at forensic laboratories to ensure they are meeting their standard operating procedures accordingly.

The final factor is questioning whether trajectory analysis is really generally accepted within the relevant scientific community. I reiterate AFTE as being an international

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professional organization that is comprised of different examiners spread throughout forensic testing laboratories, as well as researchers who are looking at this same concept of this bullet travels through this item, what is occurring, to include academic programs.

There are a lot of undergraduate universities, to include graduate universities, that are offering classes or certain elements within their programs.

Lastly, in order to have additional validation or empirical studies, grant programs, such as the National Institute of Justice and NIST, offer that element financially to support that.

The last bullet point there is that we may see these same types of equipment being used, surveying equipment, when conducting land surveying sites or other tools that are being used along the side of the roads.

- And how are these results typically reported? Q.
- Α. I broke this up into two different columns.

So the responsibility that I have is to 1 ensure that the laboratory report summarizes the 2 3 team, the location, as well as the time that the examination took place, to include now the results of the examinations, methods and limitations. 5 6 And it can be further supplemented by 7 graphics. So if you think of that -- of those first 8 three bullet points as the narrative, and the last 9 point is a visual representation. 10 So who was responsible for assisting me in generating that supplemental graphic, that would be 11 12 the operational projects unit. And so they will 13 generally create graphics or exhibits. 14 And for the graphics, they will have a 15 two-dimensional graphic, just for ease of 16 understanding -- the quick understanding of what took 17 place, so it can be an overhead perspective or a side elevation view. 18 19 And speaking of the graphic, can you briefly 20 explain how the graphic image is labeled? 21 And you provided us with an example? 2.2 I did, yes. So this example here, I redacted Α. 23 some of the administrative information to include the case number, laboratory number, since it was a part 24

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of another investigation.

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But what is critical to note here is a scale, the regimen, or key, there at the bottom right, that for green, blue, and that orange bullet, impact and trajectories. And for the purpose of the narrative, when I talk about these trajectories in the report, I broke it up by vehicle quadrant. So you can see in each corner, front driver, rear driver, and passenger It's further kind of broken up by that crosshair, so you have that designated quadrant. In the case of Hole 6, 5, and 4, you can see that those three holes are connected, meaning that they create a line that is then labeled by our Trajectory 1. Where it's labeled also indicates directionality, which is then further supported by the report. Meaning in the report, it will likely read that a trajectory was established and originated from the front driver's side, connecting Hole 6, 5, and 4.Q. Thank you. You were asked to conduct a firearm trajectory analysis in the case of United States versus Douglas Smith. Is that correct?

- That's correct. 1 Α.
- And as part of this request, you were deployed 2
- 3 to Espanola, New Mexico, on August 22, 2019?
- Α. That is also correct.
- 5 Q. And could you explain what you did, when you
- 6 arrived on scene in Espanola?
- 7 So the laboratory decided to send out just
- 8 myself as an examiner, serving as the lead for this
- 9 project. And so upon arriving to the Santa Fe
- 10 resident agency, I met up with the team that was
- 11 comprised of the agents there in Santa Fe, as well as
- 12 the evidence response team that was pulled from the
- 13 Albuquerque field office.
- 14 And as part of your deployment, what type of
- 15 information were you interested in at the scene, and
- 16 what did you observe when you got there?
- 17 So for any shooting incident, we are capturing
- field notes that indicate holes or impacts that we 18
- 19 are interested in, as part of this investigation, to
- 20 include photographs and any type of data, whether
- that be hand measurement, survey, or scan data. 21
- 2.2 And at the scene in Espanola, did you find Q.
- 23 evidence of bullets or impacts?
- 24 Yes, we did. So arriving on scene, the team
- 25 basically did a line search. And so what that

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Q.

entailed is, based on limited information that we knew about the incident, we did sort of a sweep of the property. And as we located areas that were suspect of being bullet holes or impact points, we labeled them. I labeled them by designator of Hole 1 or Hole 2, depending on the surface being examined. And it was at that point, upon labeling, that I directed the photographer to begin collecting information about those areas of interest. Once the photographs were taken, then I directed the evidence response team members to begin collecting survey or scan data of that area of interest. You may describe this in more detail later. Q. But generally, can you describe how many holes you found and where they were located? Again, looking at the entire property and doing a line search of the property, there were two areas that we would designate as areas of interest. being a metal shed adjacent to the main property, as well as a trailer that was just located outside of the fenced area.

And once you collected all of this information

not relaying information back to the examiner on

- site. 1
- And did you generate a report and a graphic 2
- 3 image associated with that report in this case?
- Yes, I did. 4 Α.
- If I can show you what's been marked for 5 Q.
- identification as Government's Exhibits 5 and 6. 6
- 7 Would you please take a look at that and
- 8 let me know if you recognize it?
- 9 Do you recognize that, sir?
- 10 Yes, I do. That is the -- I recognize it first Α.
- by the Laboratory Number 2019-2375. And that should 11
- 12 be a footer for each of those pages.
- 13 And approximately how many pages is your Ο.
- 14 report?
- 15 Three pages. And if you go back to the first Α.
- 16 one, it also indicates there was a supplemental
- 17 graphic of one page.
- And that's marked as Government's Exhibit 6? 18 Ο.
- 19 Yes. And the lab number located there at the Α.
- 20 bottom right is how I recognize it.
- 21 Thank you. And are these fair and accurate
- 2.2 depictions of your report and the associated
- 23 graphics?
- 24 Α. They are.
- 25 MS. WILSON: I move Government's Exhibits 5

where the trajectory originated from. 1 2 I'm going to clear this section and move on 3 to page 2. Ο. Okay. 5 So on the top section are the results of the 6 examination. So in this case you see here now T1, 7 which is comprised of Hole 2 and Impact 1. And then 8 Hole 1, that was located on the corner of the 9 trailer. 10 It's also a requirement, for us to have the methodology and limitations as part of the report, 11 indicating how we collected the information or how 12 the data was collected. 13 And then also in the limitation section, 14 15 what certain limits may be impacted by the X, Y, and 16 Z. So certain coordinates that are critical to put 17 in a point in space, further supporting connecting 18 those two points to create a line. 19 The final page -- and I'll clear the 20 drawings here. 21 The final page, we'll just highlight the 2.2 remarks section. So again, the person who was 23 responsible for generating the graphic, and then 24 myself as the author of this report, to include the 25 opinion there.

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And the supplemental graphic that accompanies this report. So again, viewing the results as the narrative, this is more of the visual component of the report. The lab number there at the bottom. The lab number at the bottom, and the report date of February 3, the case ID. And in this case we have Hole 1, Hole 2, and Impact 1. I mentioned earlier the areas of interest. And those areas I'm going to highlight in red. would be this trailer and this metal shed. Lastly, at the top left is a snapshot of the area that would be viewed within this diagram. And in your opinion, based on your observation, the data that was collected, your report, and the associated graphic, were multiple bullets fired by a qun that you were to determine? So a part of the methodology for Yeah. trajectory analysis allows us to look at each area independently. And so for Hole 1, there was significant damage at the corner of that, that would indicate the bullet likely impacted that and deflected or was unstable versus Hole 2, connecting to Impact 1, was a separate shot based on the damage to the television

- screen, as well as the entry of that bullet into the 1
- 2 corrugated metal.
- 3 And were you able to determine directionality
- associated with those impact points?
- Yes. So each location or hole or impact is 5 Α.
- also -- we observe the characteristics. So there are 6
- 7 certain elements, such as the metal being pulled
- 8 back, that will indicate directionality.
- As well as in the case of the Hole 2 to 9
- 10 Impact 1, we observed -- or I observed the
- 11 continuation of that damage to a second item, further
- 12 supporting the connection between those two areas.
- 13 And based on your review of the data and
- 14 analysis in this matter, is it your opinion that all
- 15 standard FBI procedures were followed?
- 16 Yes, they were. Α.
- 17 And the results were peer reviewed? Q.
- By "peer reviewed," do you mean a 18
- 19 technical/administrative review?
- 20 Q. Yes.
- 21 Α. Yes, they were.
- 2.2 MS. WILSON: Your Honor, I pass the
- 23 witness.
- 24 THE COURT: All right. Thank you.
- 25 Mr. Elsenheimer, you may cross-examine the

witness. 1

2 CROSS-EXAMINATION

- 3 BY MR. ELSENHEIMER:
- 4 0. Good morning again, Mr. Chavez.
- 5 Α. Good morning.
- 6 Q. I want to ask you about your report a little
- 7 bit. So it's a three-page report that is followed by
- 8 46 pages of documentation.
- 9 Is that right?
- 10 So -- I'm sorry. The report itself is three Α.
- 11 pages, with one supplemental graphic.
- 12 Q. The supplemental graphic is the -- is the
- 13 trajectory image that we just looked at.
- 14 Is that right?
- 15 That is correct. Α.
- 16 There are also written notes that -- at least Q.
- 17 that I have of yours.
- 18 Is that part of your report in this case?
- 19 We commonly refer to the report as being the Α.
- 20 three-page document, then supported by a supplemental
- 21 graphic.
- 2.2 Q. Okay. Well, I have one -- pages 1 through 46,
- 23 and they consist of two written pages, and then a
- 24 number of photographs.
- 25 They -- the written pages, are those

- your -- is that your handwriting? 1
- 2 Let me show you the page that I'm referring
- 3 to.
- 4 Α. Sure.
- 5 Q. Can you see that?
- 6 Yes. Will you scroll to the bottom, so I can
- 7 see the footer?
- 8 Q. Certainly.
- 9 I do recognize that by the laboratory number,
- 10 as well as the pagination, the date, and my initials
- 11 at the bottom.
- 12 Q. So this is a document that you wrote?
- 13 This is commonly referred to as our supporting
- 14 documentation. So when a report is generated, these
- 15 would be the field notes put in as part of a
- 16 discovery packet.
- 17 Q. I see. Are these your field notes? Like did
- you write this? 18
- 19 Yes, I did. Α.
- 20 Q. Okay. Following that -- those pages, I
- 21 received a number of pictures. They seem to have FBI
- 2.2 Lab Number 2019-2375-2.
- 23 Let me show you the first of those.
- Do you see that image? And I'll try to get 24
- 25 it rotated correctly.

- Is this an image that you reviewed for 1 2 purposes of your report, or is it an image that you 3 had taken? It is an image that I reviewed, but an image 4 that I directed someone to take. 5 I see. So it was taken on August 22 of 2019? 6 0. 7 That would have been the time, yes. 8 photographer was on site with me. 9 Let me go back to that handwritten page. 10 Are you able to see this clear enough to 11 read the writing? 12 I am. And I also have a laptop here. If you 13 may -- if you could zoom in just a little bit? 14 Q. Sure. 15 Α. Okay. 16 Q. Is that better? That does help, yes. Thank you. 17 A . 18 Can you tell me if -- there are three 0. 19 hashmarks. The second hashmark starts with H1. 20 Can you tell me -- I'm having a difficult 21 time reading the third line down from that.
- 2.2 It's -- the first part of it says 2, and 23 then I think it is additional. And then I can't read 24 beyond that.
- 25 Can you tell me what that says?

- Yeah. So it starts with an arrow. That is two 1 Α.
- 2 additional areas were tested. In parentheses is the
- 3 acronym BTK, which stands for bullet testing kit,
- 4 below H1. And the lead, which is referred to as Pb,
- 5 and copper, Cu, were negative.
- 6 0. Okay. So I'm going to ask you about that.
- 7 So we're refer- -- this is referring to the
- 8 hole that is identified as H1.
- 9 Is that right?
- 10 What I read is referring to two additional Α.
- 11 areas that were tested below H1.
- 12 Q. Oh, I see. And where were those areas?
- 13 When conducting a bullet testing kit of a Α.
- suspected area, what we will -- what I will do is 14
- 15 take a negative to ensure that they -- there isn't
- 16 anything on that material that would produce an
- 17 erroneous positive test for bullet or lead.
- So in this case, I chose two areas a 18
- 19 distance away from Hole 1 and tested them both for
- copper and lead, and they were negative. 20
- 21 Let me ask you about the -- the third hash that
- 2.2 says H2.
- 23 Could you read that for me, just so that I
- make sure I know exactly what it says? 24
- 25 Α. Sure. So it starts with H2, located on

- corrugated metal shed that is adjacent to property. 1
- 2 In parentheses, main house. Exterior of east facing
- 3 rear door, consistent with entry -- entry -- I'm
- sorry.
- 5 May you zoom in just a little bit?
- Certainly. Is that better? 6 Q.
- 7 I'll continue. Entry hole and material inward.
- 8 Upon opening of shed, visible damage was noted on
- 9 some items within the property. And in parentheses,
- 10 shed.
- 11 Q. Thank you. Let me ask you about that.
- 12 Upon -- so my understanding from this, and
- 13 you tell me if I'm wrong. But if I'm opening the
- 14 shed, you noticed visible damage.
- 15 What damage did you notice? Like what is
- 16 that in reference to?
- 17 That's referring to the direction. So first, Α.
- looking at Hole 2, indicating that metal or material 18
- is inward, which to me indicates that the bullet was 19
- 20 traveling from outside in.
- 21 So following the path of that bullet, or
- 2.2 projectile, and then looking at any material within
- 23 the shed.
- 24 So first, just taking a clockwise approach
- 25 and basically, again, doing sort of a line search, or

- in this case a wall search, of any items that may 1 2 have been damaged.
- 3 So there was visible damage no- -- noted on
- 4 a television screen that resulted in, also, some
- 5 glass falling. So those were indicators that damage
- 6 was visible.
- 7 Were any other items damaged in this shed,
- 8 aside from the television screen?
- 9 No other items, but focused only on the
- 10 television screen.
- 11 Let me ask you about the next hash. It has Ο.
- 12 I -- it has I2 struck out, and then it has I1.
- 13 Would you mind reading that for me, please?
- Sure. So it is a -- I1. A common quality 14
- 15 measure in our lab is to just single strike out,
- 16 initial, and date. So that I am actually just
- 17 crossing that out and rewriting Impact 1, located on
- 18 television screen that is on the southwest corner of
- 19 the interior that contains damage and other breaks in
- 20 the glass. This damage displays a radial pattern.
- 21 Bullet testing kit, or testing of lead positive,
- 2.2 copper negative.
- 23 Q. And then what does the next hash say? What
- 24 does the writing after the next hash say?
- 25 Α. That begins with, Upon review of damage there

- may be fragments that continue through the interior 1
- of the television. 2
- 3 Thank you. And then how about that last --0.
- those last two lines? Would you mind reading those,
- 5 because I can't quite tell what they say.
- 6 Α. Sure. Review television and surrounding area
- that may contain some additional evidence. 7
- 8 What does that mean? Did it say review
- 9 television, surrounding area?
- 10 Did you take any tests or was it just a
- visual review? 11
- 12 The last two statements that I just read were
- 13 reminders for me to relay that information to our
- 14 evidence response team, who are responsible for
- 15 collecting any additional evidence. So they were
- 16 just a reminder for me to have that conversation with
- 17 the team leader.
- Q. Is it Officer Chavez or how do you -- is it 18
- 19 Agent Chavez? What's your appropriate designation?
- 20 I don't want to get it incorrect.
- 21 I'm a qualified examiner, so Theo Chavez is
- 2.2 fine.
- 23 Q. You -- was the first time you visited
- 24 825 Riverside Drive on August 22, 2019?
- 25 Α. That is correct.

- Q. Did you -- are you familiar with the date of 1
- 2 the incident giving rise to the allegations in this
- 3 case?
- A. I -- no, I had no indication of the date of
- incident. 5
- 6 You don't know how long it was before you
- 7 visited there in August of 2019?
- 8 Α. The only information -- I think that it was
- 9 several months, but no details.
- 10 When were you first contacted about this case? Q.
- 11 A. Around the time frame of August 19, which would
- 12 reflect the date on my laboratory report.
- 13 So it was shortly before you visited
- 825 Riverside on August 22? 14
- 15 Using that date to, yes, form and develop a Α.
- 16 team which, again, would just be myself, from --
- 17 Q. And just to make sure -- okay. Thank you.
- 18 Just to make sure I am clear on this, you
- 19 didn't review any other documentation about this
- 20 case, any witness statements, photographs, anything
- 21 like that?
- 2.2 No. And that goes to the unbiased approach for Α.
- 23 this examination, specifically. Just reviewing the
- 24 data on site.
- 25 In addition to what is in your report, is there Q.

- anything else -- are there any other conclusions that 1
- you drew about this case, or findings that you made, 2
- 3 that are not included in this report?
- 4 A. No. The 46 pages, or records, would be any
- 5 physical records that are contained. The only other
- 6 information that was also, I believe, part of the
- 7 discovery packet, would be the chain of custody or
- 8 any technical or administrative reviews that were
- 9 conducted as a result of this report being issued.
- 10 Did you personally take any of the measurements
- 11 that are used in your report?
- 12 Α. No, I did not. And the reason being is, there
- are individuals who are trained to run the equipment, 13
- 14 such as the scanner, or are also trained to
- 15 photograph areas within the FBI's procedures.
- 16 And by the scanner, you are referring to the Q.
- FARO scanner. 17
- 18 Is that right?
- 19 I don't know if it was a FARO scanner. I just Α.
- 20 commonly refer to it as a scanner.
- 21 Okay. Let me ask you about the tests that you
- 2.2 personally conducted.
- 23 You've mentioned a bullet testing kit.
- 24 Can you describe that bullet testing kit
- 25 for us? What does that test consist of?

- So it is a presumptive color chromophoric test, 1 2 meaning that I am using positive controls to test a 3 site.
 - Given the fact that I knew it was several months prior to the shooting, I will test the location to ensure and further support that it was a hole, or an impact, and that I also wasn't getting any false positives from the surface just because it may have been in contact or been comprised of any type of lead or copper material.
- 11 How did you ident- -- you've mentioned there's 0. 12 H1 and there's H2. And those both describe bullet 13 holes, or holes that you found that you believe are associated with a bullet. 14

15 Is that right?

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- 16 Those are two labels that I would have placed Α. 17 on two different areas, correct.
- 18 Ο. How did you find H1 and H2?
- 19 Upon arriving to the scene, we did a line 20 search to locate any areas that were suspect of 21 having damage as a result of a bullet.
 - Upon review of the property, we then identified two areas of interest, that being the trailer and adjacent metal shed.

Further detail and observations of that

- resulted in labeling, physically labeling, those 1
- holes and impacts that I wanted further information, 2
- 3 or being gathered from, specifically, photos, as well
- as scan data.
- 5 You were with agents from the FBI field office
- 6 in Santa Fe when you visited 825 Riverside Drive,
- 7 correct?
- 8 Α. That's correct.
- 9 Did they point those holes out to you?
- 10 The agents from Santa Fe were primarily Α. No.
- 11 responsible for ensuring that the scene was secure,
- 12 given that we were in close proximity to a major
- 13 driveway -- or highway.
- 14 So they were providing scene protection for
- 15 us, and allowing us to conduct the examination.
- 16 Did you do any other tests, aside from the Q.
- 17 bullet testing kit?
- 18 Did you do any laser tests, anything like
- 19 that?
- 20 No, just the bullet testing kit. Α.
- 21 Did you -- so you found -- let me just clarify
- 2.2 this.
- 23 You found the holes by just looking for
- them? I'm still not entirely clear on how you found 24
- 25 these two particular holes.

- That is correct. So the procedure for us is 1 Α.
- to -- any type of shooting incident, and in this 2
- 3 case -- arrive on site, begin just doing a general
- observation. And these are individuals who are
- 5 trained to respond to shooting scenes or other
- 6 scenes, and locate items of evidence.
- 7 In this case, we're looking for areas that
- 8 were of interest. So did it display any features
- 9 that were consistent with a bullet either having
- 10 passed, grazed, or impacted?
- 11 And so in this case we started in a
- 12 clockwise manner going through the property and
- 13 locating those areas and then labeling after that.
- So yes, it was a matter of a line search 14
- 15 for a review of the entire property.
- 16 Now you mentioned in your report using your Q.
- survey equipment or laser scanner devices. So you're 17
- 18 saying that no laser scanning device was used in your
- 19 trajectory analysis in this case?
- 20 I believe the question was if I used No.
- 21 lasers.
- 2.2 Right. Did you use lasers? Q.
- 23 Α. No. Lasers were not used in this case.
- 24 Can you use lasers as part of ascertaining what
- 25 a particular bullet's trajectory is?

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If you are referring to lasers in a photograph,
 1
 2
    those are common practices for generating an
 3
    investigative photograph, but it is not a requirement
    to use lasers. The only time that is being used is
 5
    when a photograph needs to be released for
 6
    investigative reasons.
              But in this case a supplemental graphic
 7
 8
    using the data collected was generated.
 9
         Let me ask you this.
10
              Your report says that suspected bullet hole
11
    impacts were examined to determine whether they have
12
    physical defects consistent with having been caused
13
    by a bullet or debris.
14
               In this case, what was done to determine
15
    whether they were consistent with a bullet or debris?
16
          So based on my training and experience, and
    Α.
17
    having looked at different types of materials being
    encountered by bullets, these displayed
18
19
    characteristics such as the peeling of the material,
20
    further supported by the color chromophoric test of
21
    lead and copper that further supported it being a
2.2
    result of a bullet passing through it. The term
23
    "bullet" and "projectile" can be used
24
    interchangeably.
25
              When we talk about debris, there are
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chances for a bullet to pass through an intervening 1 object and then separate, meaning the lead core can 2 3 separate from the jacket material, and so it could potentially take two different paths. 5 But in this case, Hole 1 and Hole 2 were 6 treated independently based on the type of 7 characteristics that were displayed on the surface. 8 Let me ask you about that color chromographic 9 test. Do I have it correct, color chromographic 10 test? 11 Α. Color chromophoric test. 12 Q. I'm sorry. Chromophoric. Is that something 13 where you kind of get a rubbing from the H1 and H2 14 and you test it to see if it has lead residue or 15 copper residue? 16 So when I mentioned color chromophoric, it is a Α. 17 visual test, meaning that when you apply the paper onto the surface using some acid, it will appear 18 19 purple for lead and sort of an orange color for 20 copper -- excuse me, not orange -- but forest green, 21 if you will. 2.2 And so it's a color chromophoric test that 23 is done. And by the positive control being done 24 using known lead, known copper, comparing those two

together, further supports. They're not independent,

A. For H1, it was positive for lead and positive

24

25

for copper.

- What does the fact that it's positive for 1 Q.
- 2 copper tell you?
- 3 Well, again, it doesn't stand alone. But in
- this case, it will say that there is copper and lead
- 5 embedded within that damaged area around Hole 1.
- 6 I see. And then for H2, did you do the BTK
- 7 test for H2 as well?
- 8 Α. No, I did not.
- 9 You didn't do it -- for the hole in the Q.
- 10 corrugated shed, you did not do a color chromophoric
- 11 test?
- 12 No, I did not. Α.
- 13 Did you do one on the television set that you Ο.
- located inside the corrugated shed? 14
- Yes, I did. 15 Α.
- 16 What were the results of that? Q.
- 17 Α. The results were a positive copper -- excuse
- 18 me -- a positive lead and a negative copper.
- 19 Did you look -- when you visited 825 Riverside Q.
- 20 Drive on August 22 of 2019, did you look in the
- 21 woodpile for any impact sites or any holes?
- 2.2 Yes, we did. That was part of the -- again, Α.
- 23 working clockwise. That sort of would have been the
- 24 second area that we would have reviewed for any
- 25 potential damage.

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However, I do recall there being a lot of
debris and tall weeds. So there was a -- a review
done of that -- that area, and it would have included
the wood that would have been piled up.
Q.
     And did you also look at any of the trees or
limbs from the trees to see if there were any bullet
holes in those?
     We did. And in fact, I do recall several
instances where individuals had thought they had seen
a hole. But in fact, it was just a knot in the wood.
          So again, that's just -- they're doing
their job by surveying the area, just trying to find
any damage or hole. And then it is up to me to go
back and review that and determine whether or not it
meets the requirements or has any characteristics for
being the result of a projectile or bullet.
     The knot, or the hole, is that something
that -- so this was in August of 2019.
          If the incident took place a year and a
couple of months prior, is that knot or hole
something that you may have missed because of the age
that elapsed between the date of the incident and the
date that you did your investigation at the property?
     That is something we considered. However, we
were evaluating the property as we were on site. So
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- 1 | there wasn't any reason to cut into any material.
- 2 Q. Let me ask you about the trajectories.
- 3 There's something that you've labeled as
- 4 T1.
- 5 What does that stand for?
- 6 A. There is one single trajectory, so T stands for
- 7 Trajectory 1.
- 8 Q. I'm going to bring up your diagram, because I
- 9 want to ask you about that. It might be helpful for
- 10 you to refer to it.
- Now, that is the only trajectory that you
- 12 were able to ascertain.
- 13 Is that correct?
- 14 A. Those two points creating that trajectory, yes.
- 15 Q. And by the two points, are you talking about H2
- 16 and I1?
- 17 A. Hole 2 and Impact 1, yes.
- 18 Q. Okay. Now, you -- I believe, and tell me if I
- 19 am wrong. But I believe that you said that that
- 20 originated from a northeast direction.
- 21 Is that correct?
- 22 A. I believe I stated north, northeast direction,
- 23 correct.
- 24 Q. You didn't have a point of origin for where the
- 25 | bullet originated that you believed caused H2.

Is that correct? 1 Correct. That's one of the limitations for 2 3 trajectory analysis, that we don't utilize any information, nor do we put a shooter back at a 5 specific point. 6 Rather, we provide just sort of an 7 objective perspective of where that shot originated 8 So that way it provides some context of where 9 it originated, and also where additional evidence may 10 be collected along that line. 11 0. Is there any way to date the age of H2? 12 And by that, I mean are you able to 13 determine when it was caused or -- yeah. Are you able to determine when it was caused? 14 15 No, I'm not able to. 16 So let's say, for example, that someone had Q. fired a shot on Day 1, and then six months later 17 18 fired another shot, and then a year later you go and 19 find H2. 20 Is there any way for you to determine that 21 it was fired on Day 1 or six months later on Day 2? 2.2 Aside from the hole being subjected to the Α. 23 elements, there may be some rusting or other features 24 that are a result of just the metal being broken.

But no, not being able to decipher if a

- shot was, as you mentioned, sort of a year ago versus 1
- 2 present day.
- 3 You wouldn't be able to make that
- determination, aside from maybe having rusting or
- 5 something like that.
- 6 Is that right?
- 7 MS. WILSON: Your Honor, I'm going to
- 8 object; asked and answered.
- 9 BY MR. ELSENHEIMER:
- 10 Well, did you see rusting anywhere on the H2?
- 11 I don't recall rusting being present. However,
- 12 I believe there was a hornet nest kind of in the
- 13 vicinity of that hole.
- And similarly for H1, is there -- I want to ask 14
- 15 you about that.
- 16 Is there any way to date the age of H1?
- 17 Would you be able to say if bullets were fired in
- 18 January of 2018 and again in May of 2018? Is there
- 19 any way to say that the bullets -- the bullet that
- caused H1 came from January or May? 20
- 21 Α. No way to determine that, no.
- 2.2 Did you determine a point of origin for H1? Q.
- 23 Α. I'm sorry, the audio cut out.
- 24 Will you repeat the question?
- 25 Certainly. Were you able to determine a point Q.

- of origin for H1? 1
- Yes. So there were some characteristics of 2
- 3 Hole 1 that allowed for me to determine that it
- originated from the north, northeast direction.
- 5 Q. But again, you were unable to decipher a
- 6 particular point of origin for the bullet that caused
- 7 H1?
- 8 Α. Not a particular point of origin.
- 9 correct.
- 10 Your report says that H1 cannot be associated
- 11 with a trajectory.
- 12 Is that right?
- 13 That is correct. Α.
- 14 So without knowing the point of origin of
- 15 either H1 or H2, wouldn't it be possible for a bullet
- 16 to be fired and hit at H1, to ricochet and become the
- 17 bullet that caused H2?
- 18 There may be instances where that can occur,
- 19 just to -- just because of the close proximity.
- 20 However, the flip side of it is that we
- 21 also have to treat them independently.
- 2.2 So by looking at the characteristics that
- 23 are displayed by Hole 1, significant damage was noted
- 24 that would indicate the bullet likely became
- 25 unstable, when compared to Hole 2, which had a

- material going through the corrugated metal and 1
- significant damage into the television screen. 2
- 3 Let me ask you about Hole 1. You said there's 0.
- significant damage associated with that.
- 5 What was the significant damage that you
- 6 observed?
- 7 "Significant damage" meaning the -- if you look
- 8 at the detail of a hole, certain features -- that may
- 9 be the pulling back of the material, the damage of
- 10 the surface that it's encountering, as well as any
- type of characteristic of that hole that isn't just a 11
- 12 matter of a bullet basically grazing it.
- 13 So it caused enough damage for it to be
- 14 unstable, the bullet to be unstable.
- 15 Did you conduct a test to determine that it was
- 16 the type of hole that would indicate that the bullet
- 17 became unstable?
- No, I did not. But that is just a matter of 18
- 19 training and experience, having looked at other types
- of material similar to metal. 20
- Q. So you're saying that you just kind of base 21
- 2.2 that on just observing this particular impact site.
- 23 Is that right?
- 24 Yeah. Correct. Observations of those holes Α.
- 25 independently.

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So you didn't do any type of testing of that
particular hole at H1, on the side of the camper
trailer, to find out if the impact could have
resulted in a ricochet.
          It's just based on your observation of it
and kind of your hunch based on that observation.
          Is that right?
Α.
      So based on the hole itself and the testing
that was done, would have indicated that this was a
result of a bullet encountering that hole.
          Separate from that, I'm not using any
information such as prior statements or reports that
would try and connect the two.
          Rather, if a hole or an impact is being
observed, it's treated independently and reported out
as such.
     Well, let me ask you a little bit about the
camper trailer itself.
          Did you do any tests of the metal of the
camper trailer to find out if it was the type of
metal that would have caused a bullet to become
unstable?
          Because I'm sure that different metals
would have different effects on the trajectories of
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certain bullets and on whether or not they become

- unstable. 1
- I did not conduct any separate tests. However, 2
- 3 in this case, it hit the corner of the metal versus
- actually passing through the metal.
- 5 So if it were to have passed through the
- 6 metal, that bullet likely would have lost some of its
- 7 velocity.
- 8 However, hitting the corner metal, it does
- 9 ultimately become unstable and is no longer in a
- 10 straight path.
- Q. Just because a bullet is on -- not on a 11
- 12 straight path doesn't mean it's not going to
- 13 ultimately travel to a certain place and make an
- 14 impact.
- 15 Is that not right?
- 16 Correct. So it may continue on, but it has Α.
- 17 lost some velocity and has also become unstable;
- therefore, the path is sort of unknown on where that 18
- 19 projectile will go or end up.
- 20 My point is, it could have been the bullet that
- 21 caused H2. You just don't know, because there's no
- 2.2 way to say?
- 23 Α. The observations of the damage, we're treating
- 24 them two -- as two separate shots. Again, just based
- 25 on their location and the type of damage that was a

- result of the bullet passing through Hole 1 and into 1 2 Impact 1. 3 Excuse me. Hole 2 and into Impact 1.
 - And what is it about Hole 2? Did you conduct 0. any studies of the metal of Hole 2 to find out if that's the type of metal that would have reacted in a certain way to an unstable bullet or a stable bullet?
- So the way that the corrugated metal was 9 positioned, the bullet would have actually come into 10 contact in a relatively 90-degree angle. So it would 11 have impacted any metal behind it, simply just the
- 13 allowed for it to pass into and ultimately impact the 14 TV screen.

thickness of the material, which then would have

- So these, again, are all observations just based on the features of a hole and any type of object that is within its path.
- 18 Right. But you didn't conduct any test of the 0. 19 metal of the corrugated shed, did you?
- 20 No specific tests of the metal. Α.
- 21 You mentioned in the tree -- or the limbs that Q. 2.2 you saw, there were knots that someone pointed out.
- 23 Is that right?

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24 I recall the knots being on the fencepost that Α. 25 may have been close to where the lumber was piled up.

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You didn't notice -- did you notice -- you or
 1
    Q.
 2
    anybody on your team -- notice anything in any of the
 3
    trees that could have been bullet impacts?
 4
    Α.
          The trees were searched, but no bullet impacts
    were located.
 5
 6
          You mentioned that when -- and you did look at
 7
    the woodpile that was on the property. And you
 8
    mentioned other debris. Let me ask you about that.
 9
              Why was it that you weren't able to find
10
    any holes or bullet impact sites? Was it because of
11
    the debris that was around the woodpile?
12
    Α.
          No.
               The debris did not prevent us from
13
    observing any potential impacts; rather, it was just
    that we would have had to have moved equipment to try
14
15
    and look at or make additional observation.
16
              So it was a matter of the, I believe, weeds
17
    or other trash that was in that location that
18
    prevented us from doing any sort of detailed search.
19
              But nothing -- once we were able to get
20
    past that point and look on the opposite side, we
21
    were able to observe some of those areas for any
2.2
    potential damage.
23
              THE COURT: Mr. Elsenheimer, how are you
24
    doing on time?
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MR. ELSENHEIMER: Your Honor, I have -- I

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definitely have a few more questions. I know
 1
 2
    Your Honor wanted to finish early today, so I will
 3
    wrap up my examination.
 4
              Could I at least, for right now, have ten
 5
    more minutes --
 6
              THE COURT: Yes.
              MR. ELSENHEIMER: -- and then maybe a
 7
 8
    little bit longer? Okay. And again, I might go a
 9
    little longer. I don't exactly know.
10
    BY MR. ELSENHEIMER:
11
    Q. Mr. Chavez, let me go back to your report.
12
              In your report you say that the direction
13
    of travel can be determined by the nature of the
    damage around the holes, the direction of transport
14
15
    of additional material, and the lack of an exit hole
16
    on one end of the trajectory, or the recovery of a
17
    bullet or bullet fragment from one end of the
18
    trajectory.
19
              So we've been talking about H1 and H2 and
20
    your conclusion that these are two separate shots.
21
              That -- the test -- and I want to ask you
2.2
    about the tests that you used to reach that
23
    conclusion.
24
              My understanding is that the test that you
25
    used really was the bullet testing kit, which is to
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- find out if there is lead or copper associated with 1
- H1 or H2, and then the rest of that was your own 2
- 3 observations, and that's it.
- 4 Am I wrong in that assessment?
- 5 Α. You are not. So the field notes, along with
- 6 the bullet testing kit and the photographs and the
- 7 on-site observations all support the results of those
- 8 two holes being independent.
- 9 But that's really just observation. It's just
- 10 your kind of observational conclusion. You didn't
- conduct any type of laser examination, you didn't 11
- 12 conduct any type of additional tests that would
- 13 support or that would verify or -- or not verify that
- 14 particular observation.
- 15 Isn't that right?
- 16 And to clarify, lasers -- when lasers are used, Α.
- 17 that is just a visual representation of the
- observations that are made, so connecting two points 18
- 19 with a manner of lasers and fog.
- 20 But no additional procedures were -- were
- 21 done in this investigation.
- 2.2 Can you say that last part again, because you Q.
- 23 cut off right as you were saying that. I'm sorry
- 24 about that.
- 25 Yes. So all observations were made as part of Α.

this examination, meaning that lasers were not used. 1 2 There was no requirement for it. 3 But all field notes, photography, and data 4 being collected by the scan and survey data, was done in this case. 5 6 Okay. So let me just ask you again, because I 7 want to understand this. 8 A bullet, when it becomes unstable, that 9 bullet can still cause a hole and result in an impact 10 site, correct? 11 That's correct. Α. 12 Q. And it exclusively depends on how that unstable 13 bullet enters or hits whatever it ultimately hits? 14 Α. To include the ground, correct. 15 Absolutely. And so let's say, for example, 0. 16 that a bullet hits the side of a shed -- of a -- the 17 side of anything, and it becomes unstable and it 18 begins to wobble, right? 19 So when that bullet makes the next hole in 20 whatever it hits, it depends on where it hits in the 21 course of its unstable wobbling, for lack of a better 2.2 term. 23 Isn't that right?

So if it hits at the right angle, it's

going to cause the same type of hole that a bullet

24

- that didn't hit anything, an unobstructed bullet, 1
- 2 correct?
- 3 A. May you repeat that? I'm sorry.
- 4 Just when it does impact something and
- 5 its -- I'm sorry -- its shape.
- 6 So if an unstable bullet is traveling through
- 7 the air and it hits the side of a metal building, the
- 8 hole that it creates, when it hits the side of that
- 9 metal building, depends on how it entered that metal
- 10 building, correct?
- 11 That is correct. Α.
- 12 Q. And that hole could look like -- could look
- 13 identical to the hole created by a bullet that was
- 14 not unstable?
- 15 A. Correct. The term we commonly use is a
- 16 keyhole.
- 17 So the keyhole could be the same for an
- unstable bullet or a stable bullet? 18
- 19 The keyhole will depend on the type of material Α.
- that it's passing through. 20
- 21 Where we typically see a keyhole is when
- 2.2 a -- it's in a drywall material. So when a bullet
- 23 becomes unstable, it will pass through, potentially
- 24 the shape, the overall shape of that bullet, and
- 25 appear as if it is a keyhole.

Right. So just -- so there's no way to 1 Q. determine conclusively, based on a keyhole, whether 2 3 the bullet that caused it was stable or unstable? 4 Dependent on -- it's dependent on the material. 5 So in some cases, we can determine that a bullet was unstable based on the profile or shape of that hole. 6 7 There are features or characteristics that 8 would indicate a bullet having passed through without 9 any type of intervening object versus a bullet that 10 is unstable. All dependent, though, on the type of 11 material. 12 So there's nothing about Hole H2 in the 13 corrugated shed that you can conclusively say was caused by a stable bullet, correct? 14 15 That's incorrect. So I cannot state that 16 Hole 2 is taking the shape of an unstable bullet. 17 O. But it could be? That is also possible. However, Hole 2 has 18 19 additional information behind it, that being 20 Impact 1. 21 So collectively using all the information 2.2 about that hole and its proximity, Hole 2 connects to 23 Impact 1. Therefore, that bullet is still in stable 24 condition when it passed through the material.

MR. ELSENHEIMER: May I have a moment,

- Your Honor? 1 THE COURT: You may. 2 BY MR. ELSENHEIMER: 3 Does the weather on a particular occasion or 4 Ο. the wind on a particular occasion affect your 5 6 analysis, trajectory analysis? 7 No, it does not. 8 Q. So you did this -- your field tests in 9 August -- on August 22, 2019, and the incident in 10 this case was a year and, I believe, three months 11 prior to that. 12 So over a year and three months later, 13 small changes in the location of the TV or the 14 location of the trailer, that could affect your 15 trajectory analysis. 16 Isn't that right? 17 That information -- again, any type of prior Α. 18 location isn't reflected in the work or examination 19 that was conducted on August 22. 20 So the report, as well as the supplemental 21 graphic, speaks to the examination conducted on 2.2 August 22. 23 Q. Okay. And there's nothing about -- and I
- 25 But what you're not able to do, through

understand that, because you want to be objective.

that attempted objectivity, is you're not able to 1 2 have a baseline comparison to the state of the 3 property or the state of the objects at the time of the actual incident. 4 Isn't that correct? 5 6 Α. Correct. That would introduce any type of bias 7 into the report or the graphic. 8 So ideally for you, you would get out to the 9 scene of an incident, or alleged crime, almost 10 immediately after the alleged incident. 11 Isn't that right? 12 Α. No. There are some cases where we will respond 13 out several years after the incident occurred. 14 The laboratory also will take a position to 15 provide an unbiased -- if there, for instance, is an 16 instance of a color of law shooting, where the 17 laboratory will go in and conduct an examination to provide, again, an unbiased approach based on the 18 scene or based, maybe, on a vehicle that was secured. 19 20 Q. Okay. Let me ask you this. 21 You were discussing H2, and I believe it's 2.2 I1, which is the impact site on the television. 23 Your conclusion about the trajectory would 24 change if the -- if the position of the television

25

was moved.

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Isn't that right?
 1
              So if the television was in a different
 2
 3
    place, that would affect your analysis of the
    trajectory, wouldn't it?
 5
    Α.
          If the TV was located in a different area, not
 6
    within the path of that bullet, yes. That would
 7
    cause some question of, Well, could it have been
8
    moved?
 9
    Q. You have no way of knowing if the TV was in the
10
    same place on August 22, 2019, as it was on May 5,
11
    2018, when the incident took place, do you?
12
    Α.
         I have no information about that.
13
          And you have no way of saying that the trailer
    Ο.
14
    that you observed on August 22, 2019, was in the same
15
    place as it was on May 5, 2018, at the time of the
16
    alleged incident, do you?
17
    A. No information about that as well.
18
              MR. ELSENHEIMER: Nothing further,
    Your Honor. I'll pass the witness.
19
20
              THE COURT: All right. Thank you.
21
              Ms. Wilson, do you have any redirect?
2.2
              MS. WILSON: No, Your Honor.
23
              THE COURT: All right. May this witness be
24
    excused from this hearing?
25
              MS. WILSON: Yes, Your Honor.
```

THE COURT: All right. 1 2 Thank you for your testimony today, 3 Mr. Chavez. 4 THE WITNESS: Thank you. 5 THE COURT: So that concludes the testimony 6 we'll be hearing today. 7 I don't really require any additional 8 argument. 9 One of the things that I wanted to ask you 10 about today -- I guess we won't really have time to 11 get to -- to respond, at least verbally today, so I'm 12 going to ask you to respond in writing. 13 And what I was a little bit curious about, 14 because the government had supplemented its -- what 15 was the issue of the statements that the government 16 wanted to submit, you did -- you confused me a little 17 bit. I wasn't quite sure exactly what, in the transcript, you intend to at least try to admit. 18 19 So what I'd like you to do is, I'd like the 20 government to submit a transcript that is highlighted 21 with the statements that they want to ask the Court 2.2 to admit. 23 And then I would like the defense to 24 respond with its own highlighting, so that I can look 25 at that and make a decision without having to take

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any more of your time in -- in a hearing.
 1
              That's the -- that was the crux of my
 2
 3
    question. I just wanted to make sure I know what
 4
    statements exactly the government seeks to admit, and
    then what the defense feels needs to be added for
 5
 6
    completion.
 7
              So can you do that, Ms. Wilson, say, in
8
    ten days?
 9
              MS. WILSON: Yes, Your Honor. Ten days
10
    would be fine. Thank you.
11
              THE COURT: All right.
12
              And then, Mr. Elsenheimer, you can respond
13
    with your highlighting -- and, what should -- five
14
    additional days, ten days? What do you think?
              MR. ELSENHEIMER: I think five would be
15
           If I need more time for some reason I'll
16
    fine.
17
    submit a request. But I'll do my best to get it in
18
    five.
19
              THE COURT: All right. So let me see.
20
              The government's in ten days, and then the
21
    defense has five days to respond unless a request
2.2
    comes for additional time.
23
              Mr. Elsenheimer, you look like you have
24
    something you want to say.
25
              MR. ELSENHEIMER:
                                No.
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THE COURT: No? Okay.
 1
              MR. ELSENHEIMER: I think it's because of
 2
 3
    the way that the camera is positioned that makes me
    look like I'm --
 4
 5
              THE COURT: You're itching to say things.
 6
              MR. ELSENHEIMER: Well, I usually am.
 7
              THE COURT: Yeah. Right. It all makes
8
    sense.
 9
              I don't have anything else that I need to
10
    ask you to clarify today. So unless there's
    something that you all want to bring to the Court's
11
12
    attention, I will work diligently on getting this
13
    finalized and get my ruling to you all, of course,
14
    once I see what the transcript looks like.
15
              So -- all right?
16
              MR. ELSENHEIMER: Could I ask,
17
    Your Honor --
18
              THE COURT: Yes.
19
              MR. ELSENHEIMER: Just in terms of a trial
20
    setting, just so we can kind of gauge for ourselves,
21
    are we thinking -- I know that everything is up in
2.2
    the air, so everything is with the caveat that things
23
    could get shut down again because of the pandemic.
24
              But is Your Honor thinking January,
25
    February, later into the spring?
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THE COURT: Well, I don't have a specific time frame just yet. Clearly, it's not going to be this year. And then the reality is that right now we have one jury courtroom that all of us are sharing in the Northern District. We -- we may try to come up with a second courtroom, but we're not there yet. So that, of course, affects everything. And that's one of the reasons why I say it's not going to be this year. And then of course as you pointed out, Mr. Elsenheimer, the way this virus is -- is -- you know, it just seems to be that we're getting more and more people that are testing positive. So I -- I don't know what to tell you exactly. I will tell you that there are cases that probably have priority over this one, because your defendant is not in custody. So once we are able to start getting cases tried, I think we're all going to be pretty backed up, and I think we're going to be interested in getting cases tried where defendants are in custody. But as -- so I'm just basically telling you the various considerations that go into it. And it

won't be this -- this year. But I -- it might be

```
spring of next year. That might happen.
 1
              And I'm looking at Yvonne to see if she's
 2
 3
    going to shake her head and tell me that I'm out of
    my mind, but she's not. So...
 5
              But here -- but here is my plan. You know,
 6
    once I -- once I have a ruling on these motions, and
 7
    once it looks like things are maybe -- not calming
8
    down, but once I feel like I'm in a position where
 9
    maybe we all need to seriously plan, I will have a
10
    status conference so that we can try to figure out
    dates and availability of witnesses and things of
11
12
    that nature.
13
              So I promise I won't spring it on you, but
    I don't think it's going to be in the next few
14
15
    months.
16
              MR. ELSENHEIMER: Thank you, Your Honor.
17
              THE COURT: Sorry I can't --
18
              MR. ELSENHEIMER: No, no problem at all.
19
    completely understand. I'm just curious.
20
              THE COURT: Yeah. And ask any time.
21
    mean, I don't mind questions like that. It's fine.
2.2
              All right. Well, thank you all for your
23
    appearances today. Thank you for your presentations.
24
              I'll take the matter under advisement, and
25
    we'll be in recess.
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(Proceedings concluded at 12:06 p.m.)
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CERTIFICATION I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter. I further certify that the transcript fees and format comply with those prescribed by the Court and the Judicial Conference of the United States. Date: November 13, 2020 PAUL BACA, RPR, CCR Certified Court Reporter #112 License Expires: 12-31-20

1	<u>I N D E X</u>						
2	GOVERNMENT'S EVIDENCE						
3	WITNESSES:						
4	SAIGE LIBERTORE:						
5	Direct Examination by Mr. Nayback9 Cross-Examination by Mr. Elsenheimer						
6	THEODORE CHAVEZ:						
7 8 9	Direct Examination by Ms. Wilson						
10	Certificate of Court Reporter140						
11	GOVERNMENT'S EXHIBITS						
12	NO. DESCRIPTION ADMITTED						
13	Chavez 1 Chavez CV 72						
14	Chavez 2 Slides 80						
15	Chavez 3 Slides 80						
16	Chavez 4 Slides 80						
17	Chavez 5 Report 96						
18	Chavez 6 Graphic 96						
19	Libertore 1 Photograph 13						
20	Libertore 2 Photograph 14						
21	Libertore 3 Photograph 15						
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1			DEFENSE	EXHIBITS		
2	NO.	DESCRIPTION			ADMIT	TED
3	А	Photograph				24
4	В	Photograph				26
5	С	Photograph				29
6	E	Photograph				30
7	Н	Photograph				3 4
8	J	Photograph				45
9	K	Photograph				47
10	L	Photograph				52
11	M	Photograph				52
12	N	Photograph				56
13	Р	Photograph				58
14	Q	Photograph				61
15	R	Photograph				61
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